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ORDERLY LIQUIDATION OF STOCKS OF AGRICULTURAL COMMODITIES HELD
BY THE COMMODITY CREDIT CORPORATION AND THE EXPANSION OF MARKETS
FOR SURPLUS AGRICULTURAL COMMODITIES

An Annual Report by the Secretary of Agriculture in response to
Section 201 (b), Public Law 540, 84th Congress

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UNITED STATES DEPARTMENT OF AGRICULTURE
Washington, D.C.

January 1966

This report is in response to the following parts of Section 201(b), Public Law 540, 84th Congress, approved May 28, 1956:

". . . The Secretary shall report annually on his operations under subsection (a) and such reports shall show--

- (1) the quantities of surplus commodities on hand;
- (2) the methods of disposition utilized and the quantities disposed of during the preceding twelve months;
- (3) the methods of disposition to be utilized and the estimated quantities that can be disposed of during the succeeding twelve months;
- (4) a detailed program for the expansion of markets for surplus agricultural commodities through marketing and utilization research and improvement of marketing facilities; and
- (5) recommendations for additional legislation necessary to accomplish the purposes of this section."

NOTE: Parts I, II and IV were written and compiled by the Office of the General Sales Manager, Foreign Agricultural Service on the basis of official figures furnished by the Fiscal and Budget Divisions of the Agricultural Stabilization and Conservation Service.

The topical sections of Part III were written by various agencies of the Department as indicated below:

Utilization Research and Development - Agricultural Research Service
Expanding Domestic Markets - Economic Research Service
Improvement of Marketing Facilities - Consumer and Marketing Service
Economic Research and Promotion of Exports - Foreign Agricultural Service and Economic Research Service
Farmer Cooperatives - Farmer Cooperative Service
Forest Products Marketing and Utilization Research - Forest Service

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PART I

QUANTITIES OF SURPLUS COMMODITIES ON HAND; SALES AND DISPOSITION METHODS USED; AND QUANTITIES OF CCC COMMODITIES MOVED INTO CONSUMPTION CHANNELS

The total cost value of CCC price support inventories dropped again during the past fiscal year from \$4.3 billion as of June 30, 1964 to \$3.9 billion as of June 30, 1965. During Fiscal Year 1965 CCC sold or otherwise disposed of commodities with a cost value of \$2.5 billion (excludes inventory carrying charges) as compared with \$2.7 billion in Fiscal Year 1964. Sales of corn, grain sorghums, rice and tobacco were higher than last year's level. However, sales of wheat and dairy products fell below sales for the Fiscal Year 1964.

CCC'S PRICE SUPPORT INVESTMENT

CCC's investment in price support loans and inventories totaled \$6,386,626,712 as of June 30, 1965, down \$711,300,402 from the total investment last year of \$7,097,927,114. Commodities pledged for loans decreased from \$2,759,652,459 to \$2,494,386,485 (see Table 1) which shows total CCC investment in commodities pledged for loans and commodities in inventory as of June 30, 1965).

Composition of the total CCC inventory and changes in the inventory from Fiscal Year 1961 through 1965 are shown in Table 2.

CCC inventories of upland cotton increased from 4,403,013 bales in 1964 to 6,639,909 bales in 1965. Corn decreased from 735,390,217 bushels to 482,973,888 bushels. Wheat dropped from 828,850,724 bushels to 646,309,505 bushels. Stocks of grain sorghums, butter and cheese were reduced. Inventories of nonfat dry milk increased by 32,919,495 pounds. Tobacco under loan increased from 942,544,419 pounds to 1,149,363,837 pounds. During the year CCC moved out of inventory all of its cottonseed oil and ghee. Although CCC's total price support investment has been markedly reduced during the past five years, (from \$7,323,080,667 to \$6,386,626,712) cotton and tobacco inventories remain in burdensome supply. See Charts 1 and 2.

CCC SALES PROGRAMS AND DISPOSAL METHODS

CCC sells or otherwise disposes of its commodities through five major outlets: Commercial Sales for U. S. Dollars, Payment-in-Kind Programs, Barter, Sales for Foreign Currencies and Dollars under Public Law 480, Transfers and Donations. In its sales and disposal operations, CCC utilizes, insofar as practicable, the customary facilities and arrangements of trade and commerce. Under the above programs CCC has developed various sales methods which are summarized by commodity in Table 3.

Composition of these sales and dispositions for Fiscal Year 1965 are shown in Table 4.

Tobacco price support activity for Fiscal Year 1965 including sales and liquidation of tobacco under loan are shown in Table 5.

Table 1.

QUANTITY AND VALUE OF COMMODITIES PLEDGED FOR OUTSTANDING LOANS
AND COMMODITIES IN PRICE-SUPPORT INVENTORY AS OF JUNE 30, 1965
AND TOTAL INVESTMENT AS OF JUNE 30, 1964

(All Figures in Thousands)

COMMODITY	Unit of Measure	Investment as of June 30, 1965 a/			Total			Total Investment as of June 30, 1964 a/		
		Pledged for Loans	In Inventory		Quantity		Value	Quantity		Value b/
		Quantity	Value	Quantity	Value b/	Quantity	Value	Quantity	Value b/	Quantity
Basic Commodities:										
Corn.....	Bushel	578,967	\$ 615,650	482,974	\$ 594,737	1,061,941	\$ 1,210,387	1,449,641	\$ 1,665,475	23
Corn Products.....	Pound	-	-	6,359	234	6,359	234	683	23	-
Cotton, Extra Long Staple.....	Bale	32	7,765	99	26,158	131	33,923	142	37,093	-
Cotton, Upland.....	Bale	5,292	767,242	6,640	1,096,859	11,932	1,864,101	10,559	1,713,419	-
Peanuts.....	Pound	14,200	1,458	43,195	6,996	57,395	8,454	74,819	12,181	-
Rice.....	Cwt.	3	16	1,312	6,780	1,315	6,796	1,619	8,506	-
Tobacco.....	Pound	1,149,364	826,326	-	-	1,149,364	826,326	942,544	666,881	-
Wheat.....	Bushel	90,619	136,396	646,310	1,296,655	736,929	1,433,051	890,844	1,797,614	-
Wheat, Rolled.....	Pound	-	-	424	24	424	24	407	19	-
Wheat Flour.....	Pound	-	-	682	36	682	36	3,488	182	-
Bulgur.....	Pound	-	-	1,455	86	1,455	86	78	4	-
Total Basic Commodities.....		xxx	2,354,853	xxx	3,028,565	xxx	5,383,418	xxx	5,901,397	-
Designated Nonbasic Commodities:										
Milk and Butterfat:										
Butter.....	Pound	-	-	158,991	93,522	158,991	93,522	183,269	106,450	-
Butter Oil.....	Pound	-	-	1,592	1,230	1,592	1,230	21,040	16,298	-
Cheese:										
Cheese.....	Pound	-	-	2,089	793	2,089	793	33,062	12,522	-
Milk, Dried:										
Milk, Dried.....	Pound	-	-	282,620	41,286	282,620	41,286	249,701	37,752	-
Barley:										
Barley.....	Bushel	9,892	7,468	19,542	16,609	29,434	24,077	48,027	40,229	-
Grain Sorghum.....	Bushel	36,176	35,782	564,302	648,026	600,478	683,808	670,187	741,084	-
Mixed Feed.....	Cwt.	-	-	109	231	109	231	-	-	-
Honey:										
Honey.....	Pound	6,767	825	-	-	6,767	825	1,025	130	-
Oats.....	Bushel	43,444	24,510	42,218	25,368	85,662	49,878	72,003	41,804	-
Rye.....	Bushel	553	541	5,922	6,351	6,475	6,892	814	877	-
Tung Oil.....	Pound	25,537	6,113	14,717	3,524	40,254	9,637	14,926	3,618	-
Total Designated Nonbasic Commodities.....		xxx	75,239	xxx	836,940	xxx	912,179	xxx	1,001,995	-
Other Nonbasic Commodities:										
Beans, Dry Edible:										
Beans, Dry Edible.....	Cwt.	188	1,243	476	3,585	664	4,828	1,687	12,146	-
Cottonseed Oil, Refined:										
Cottonseed Oil, Refined.....	Pound	-	-	-	-	-	-	79,210	8,713	-
Cottonseed Oil, Refined (Salad Oil):										
Cottonseed Oil, Refined (Salad Oil).....	Pound	-	-	-	-	-	-	22	4	-
Flaxseed:										
Flaxseed.....	Bushel	3,792	10,747	2,449	7,254	6,241	18,001	10,736	31,770	-
Linseed Oil.....	Pound	-	-	80,000	9,494	80,000	9,494	21,000	2,472	-
Naval Stores: Rosin:										
Naval Stores: Rosin.....	Pound	371,806	39,057	-	-	371,806	39,057	287,014	30,039	-
Soybeans:										
Soybeans.....	Bushel	5,940	13,248	2	6	5,942	13,254	45,353	100,776	-
Vegetable Oil Products.....	Pound	-	-	3,418	654	3,418	654	2,725	408	-
Total Other Nonbasic Commodities.....		xxx	64,295	xxx	20,993	xxx	85,288	xxx	186,328	-
Exchange Commodities:										
Strategic and Critical Materials:										
Strategic and Critical Materials.....		xxx	xxx	xxx	5,742	xxx	5,742	xxx	8,207	-
TOTAL.....		xxx	\$ 2,494,387	xxx	\$ 3,892,240	xxx	\$ 6,386,627	xxx	\$ 7,097,927	-

a/ Investment value before deduction of reserve for losses.

b/ Investment value of inventory represents acquisition cost plus cost of any packaging or processing performed after acquisition.

Table 2

COMMODITIES IN CCC INVENTORY AND TOBACCO UNDER LOAN TO CCC
AS OF JUNE 30
(All figures in Thousands)

Commodity	Unit of Measure	1961	1962	1963	1964	1965
CCC Inventories						
Cotton, Extra Long Staple	Bales	43	14	16	37	99
Cotton, Upland	Bales	1,932	1,449	4,136	4,403	6,640
Wheat	Bushels	1,242,518	1,096,620	1,082,464	828,851	646,310
Wheat Flour	Pounds	80	--	--	3,488	682
Wheat, Rolled	Pounds	--	--	--	407	424
Bulgur	Pounds	--	2,255	4,854	78	1,455
Corn	Bushels	1,261,016	658,805	492,124	735,390	482,974
Corn Products	Pounds	--	1,079	--	683	6,359
Barley	Bushels	53,769	34,092	46,976	27,908	19,542
Oats	Bushels	10,358	16,744	18,623	33,190	42,218
Rye	Bushels	4,323	2,617	1,563	766	5,922
Grain Sorghums	Bushels	700,555	687,101	633,412	637,585	564,302
Butter	Pounds	159,531	401,030	379,846	183,269	158,991
Butter Oil	Pounds	--	--	90,959	21,040	1,592
Ghee	Pounds	--	--	2,170	1,589	--
Cheese	Pounds	17,673	106,055	51,420	33,062	2,089
Milk, Dried Non-fat	Pounds	307,018	626,052	706,776	249,701	282,620
Beans, Dry Edible	Cwt.	1,206	2,631	1,168	1,426	476
Rice, Milled	Cwt.	76	179	14	--	--
Rice, Rough	Cwt.	4,216	135	1,796	1,590	1,312
Peanuts, Farmers' Stock	Pounds	16,546	--	6,937	--	--
Peanuts, Shelled	Pounds	70,188	4,431	66,944	67,037	43,195
Tung Oil	Pounds	4,828	--	--	--	14,717
Cottonseed Oil, Refined	Pounds	--	--	1,268	79,232	--
Linseed Oil	Pounds	--	--	--	21,000	80,000
Flaxseed	Bushels	1	--	5,327	10,616	2,449
Soybeans	Bushels	1	51,631	3,182	19	2
Vegetable Oil Products	Pounds	--	93,772	17,362	2,725	3,418
Turpentine	Gallons	--	1,730	826	--	--
Mixed Feed	Cwt.	--	--	--	--	109
Tobacco	Pounds	609,524	Tobacco Under Loan to CCC 451,079	609,453	942,544	1,149,364

Chart 1

QUANTITIES OF SELECTED COMMODITIES IN CCC INVENTORY AND TOBACCO UNDER LOAN TO CCC

Fiscal Years 1961-65

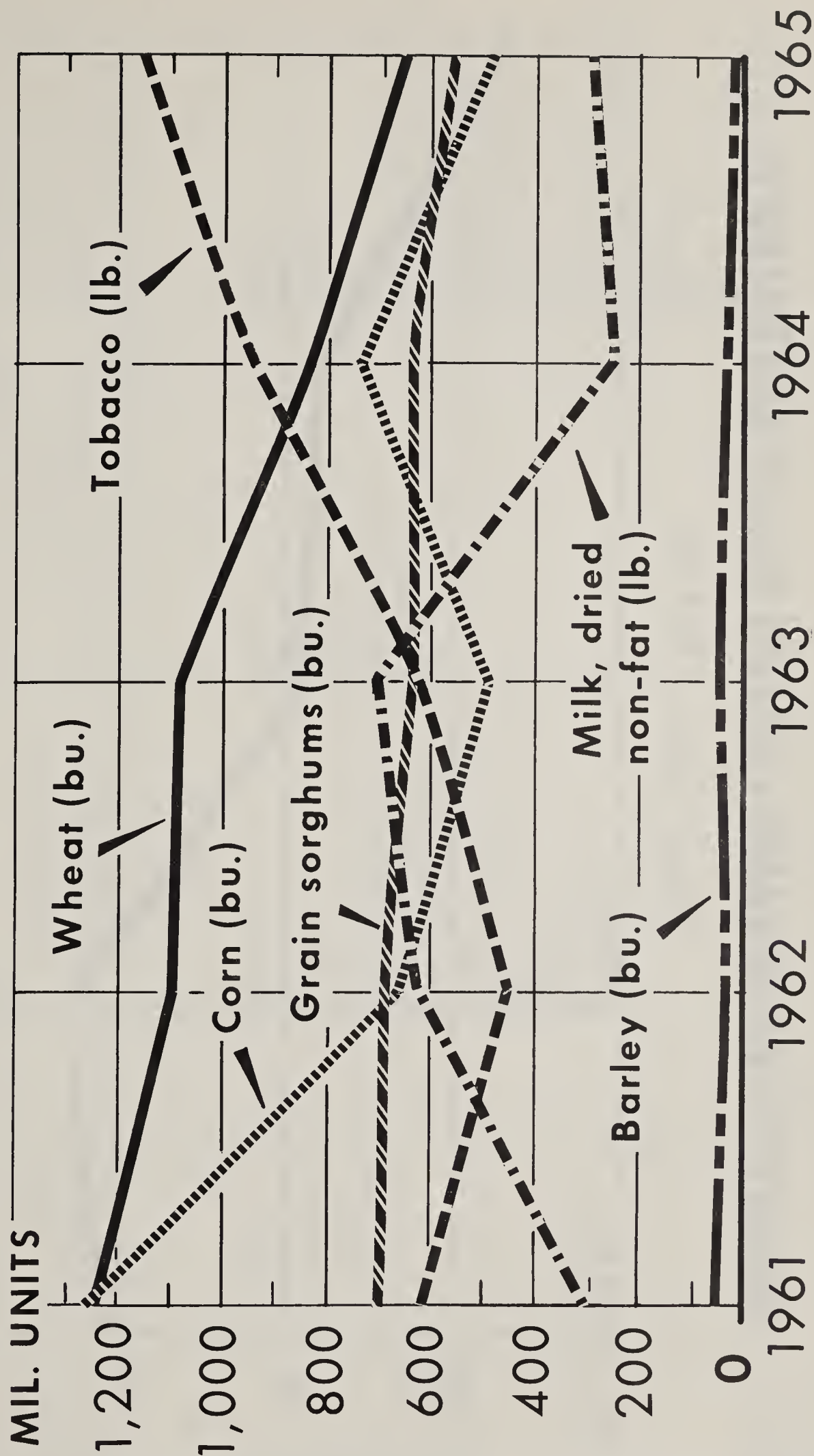


Chart 2

QUANTITY OF UPLAND COTTON IN CCC INVENTORY

Fiscal Years 1961-65

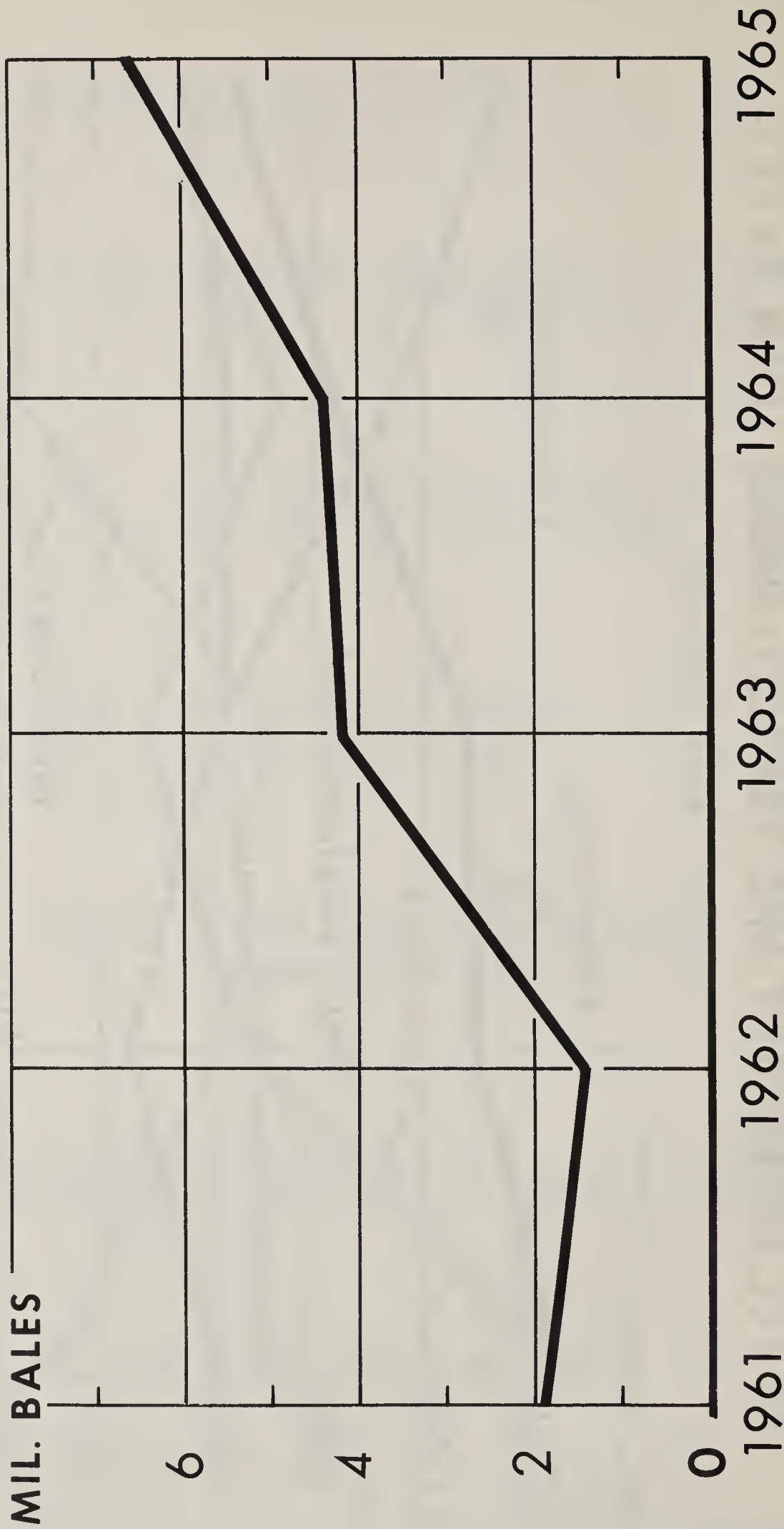


Table 3

METHODS OF SELLING CCC COMMODITIES

June 1965

FOR EXPORT			FOR UNRESTRICTED USE (DOMESTIC OR EXPORT)	
Commodities Offered on Competitive Bids	Commodities Offered at Announced Prices	Commodities Offered in Redemption of Export Commodity Certificates	Commodities Approved for Sale at Concessional Prices <u>3/</u>	Commodities Offered at Not Less than the Statutory Minimum or other Minimum Set by CCC <u>1/</u>
(1)	(2)	(3)	(4)	(5)
Butter	Butter	Barley	Butter	Barley
Cheese	Cheddar Cheese	Butter	Cheese	Butter
Non-fat Dry Milk	Non-fat Dry Milk	Cheese	Non-fat Dry Milk	Cheese
Peanuts	Rough Rice <u>2/</u>	Corn	Wheat	Corn
Cotton, upland		Cotton, upland	Cottonseed Oil	Cotton, upland
Cotton, extra long staple		Grain Sorghums	Soybean Oil	Cotton, extra long staple
		Non-fat Dry Milk		Dry Edible Beans
		Oats		Flaxseed
		Rough Rice <u>2/</u>		Grain Sorghums
		Rye		Non-fat Dry Milk
		Wheat		Oats
		Flaxseed		Peanuts, Edible
		Linseed Oil		Peanuts, for Crushing
				Soybeans
				Rough Rice
				Rye
				Wheat

1/ Sales of commodities in danger of deterioration are made at the best price obtainable. Dispositions against certificate rights under the feed grain program are made at market price but not less than the loan rate plus reasonable carrying charges.

2/ For export as milled, unpolished milled, or brown rice.

3/ Non-commercial sales below world market prices but at best price obtainable for export under special programs approved by the CCC Board of Directors.

Table 4

DISPOSITION OF INVENTORIES ACQUIRED
UNDER THE PRICE-SUPPORT PROGRAM BY TYPE OF DISPOSITION
FISCAL YEAR 1965

(All Figures in Thousands)

COMMODITY AND ITEM	Unit of Measure	Total Dispositions	Sales for Dollars		Public Law 480 (Export) c/				Barter (Export) d/	Payment-in-Kind e/		Transfers to Other Government Agencies		Donations g/		
			Domestic a/	Export b/	Title I	Title II	Title IV	Unrestricted Use		Export	Domestic f/	Export	Domestic i/	Export		
BASIC COMMODITIES:																
Corn:																
Quantity.....	Bushel	376,691	52,674	32,806	462	4,376	32	6,305	277,772	1,426	64	106	668			
Cost Value.....		\$ 451,600	\$ 62,895	\$ 40,024	\$ 564	\$ 5,750	39	7,692	\$ 331,876	\$ 1,740	74	118	828			
Proceeds.....		\$ 451,341	\$ 55,922	\$ 44,389	\$ 1,055	\$ 9,800	66	8,733	\$ 329,481	\$ 1,795	100	-	-			
Corn Products:																
Quantity.....	Pound	586,285	1,078	-	-	75,309	-	-	-	-	-	163,455	346,443			
Cost Value.....		\$ 21,817	\$ 38	-	-	\$ 2,710	-	-	-	-	-	\$ 6,115	\$ 12,954			
Proceeds.....		\$ 21,785	\$ 20	-	-	\$ 2,765	-	-	-	-	-	-	-			
Cotton, Extra Long Staple:																
Quantity.....	Bale	34	1	15	18	-	-	h/	-	-	-	h/	-			
Cost Value.....		\$ 8,983	\$ 359	\$ 3,783	\$ 4,811	-	-	30	-	-	-	h/	-			
Proceeds.....		\$ 8,347	\$ 63	\$ 2,844	\$ 5,418	-	-	22	-	-	-	h/	-			
Cotton, Upland:																
Quantity.....	Bale	3,386	11	651	240	-	42	421	2,021	h/	-	h/	4			
Cost Value.....		\$ 559,224	\$ 1,798	\$ 107,496	\$ 39,557	-	\$ 6,812	\$ 69,559	\$ 333,936	\$ 62	-	-	-			
Proceeds.....		\$ 485,316	\$ 1,956	\$ 71,299	\$ 44,421	-	\$ 7,664	\$ 49,683	\$ 310,249	\$ 44	-	-	-			
Peanuts, Farmers' Stock:																
Quantity.....	Pound	322	296	-	-	-	-	-	-	-	-	26	-			
Cost Value.....		\$ 35	\$ 32	-	-	-	-	-	-	-	-	3	-			
Proceeds.....		\$ 8	\$ 8	-	-	-	-	-	-	-	-	-	-			
Peanuts, Shelled:																
Quantity.....	Pound	172,488	126,356	46,132	-	-	-	-	-	-	-	-	-			
Cost Value.....		\$ 27,033	\$ 19,522	\$ 7,511	-	-	-	-	-	-	-	-	-			
Proceeds.....		\$ 12,972	\$ 8,968	\$ 4,004	-	-	-	-	-	-	-	-	-			
Rice, Milled:																
Quantity.....	Cwt.	1,296	2	-	-	-	-	-	-	-	-	1,294	-			
Cost Value.....		\$ 12,383	\$ 23	-	-	-	-	-	-	-	-	\$ 12,360	-			
Proceeds.....		\$ 25	\$ 25	-	-	-	-	-	-	-	-	-	-			
Rice, Rough: 1/																
Quantity.....	Cwt.	1,093	718	1*	51	-	-	-	-	325	-	-	-			
Cost Value.....		\$ 5,711	\$ 3,777	\$ 2*	\$ 263	-	-	-	-	\$ 1,673	-	-	-			
Proceeds.....		\$ 6,087	\$ 4,183	\$ 2*	\$ 266	-	-	-	-	\$ 1,640	-	-	-			
Tobacco, Owned:																
Quantity.....	Pound	41,543	-	-	-	-	-	41,543	-	-	-	-	-			
Cost Value.....		\$ 29,093	-	-	-	-	-	\$ 29,093	-	-	-	-	-			
Proceeds.....		\$ 29,093	-	-	-	-	-	\$ 29,093	-	-	-	-	-			
Wheat:																
Quantity.....	Bushel	288,068	106,386	14,057	27,688	8,283	3,256	12,752	35,879	75,069	-	-	4,698			
Cost Value.....		\$ 553,677	\$ 203,957	\$ 26,973	\$ 53,127	\$ 16,432	\$ 6,248	\$ 24,468	\$ 68,889	\$ 144,040	-	-	\$ 9,543			
Proceeds.....		\$ 541,882	\$ 175,105	\$ 21,810	\$ 94,860	\$ 29,033	\$ 10,957	\$ 22,719	\$ 60,083	\$ 127,315	-	-	-			
Wheat, Rolled:																
Quantity.....	Pound	137,030	8	-	-	4,732	-	-	-	-	-	55,686	76,604			
Cost Value.....		\$ 7,575	\$ 1	-	-	\$ 225	-	-	-	-	-	\$ 3,471	\$ 3,878			
Proceeds.....		\$ 273	\$ 1	-	-	\$ 272	-	-	-	-	-	-	-			
Wheat Flour:																
Quantity.....	Pound	1,984,948	4,340	-	-	427,318	-	-	-	-	-	503,542	1,049,748			
Cost Value.....		\$ 97,036	\$ 248	-	-	\$ 19,643	-	-	-	-	-	\$ 28,846	\$ 48,299			
Proceeds.....		\$ 20,053	\$ 22	-	-	\$ 20,031	-	-	-	-	-	-	-			
Bulgur:																
Quantity.....	Pound	404,420	25	-	-	64,752	-	-	-	-	-	4,505	335,138			
Cost Value.....		\$ 21,231	\$ 2	-	-	\$ 3,224	-	-	-	-	-	\$ 316	\$ 17,689			
Proceeds.....		\$ 3,952	\$ 23	-	-	\$ 3,929	-	-	-	-	-	-	-			
DESIGNATED NONBASIC COMMODITIES:																
Butter:																
Quantity.....	Pound	243,735	36,967	20,907	2,243	240	-	-	469	101,700	15,660	65,262	287			
Cost Value.....		\$ 143,423	\$ 21,201	\$ 12,318	\$ 1,321	\$ 145	-	-	\$ 276	\$ 60,301	\$ 9,226	\$ 38,463	\$ 172			
Proceeds.....		\$ 100,598	\$ 22,568	\$ 7,879	\$ 1,394	\$ 152	-	h/	\$ 179	\$ 62,413	\$ 6,013	-	-			
Butter Oil:																
Quantity.....	Pound	20,839	16	-	-	744*	-	-	-	-	1,391	h/	20,176			
Cost Value.....		\$ 16,077	\$ 11	-	-	\$ 573*	-	-	-	-	\$ 1,012	h/	\$ 15,627			
Proceeds.....		\$ 132	\$ 19	-	-	\$ 555*	-	-	-	-	\$ 668	-	-			
Cheese:																
Quantity.....	Pound	145,107	841	3,324	1,838	-	-	-	-	87,723	32	51,349	-			
Cost Value.....		\$ 56,100	\$ 322	\$ 1,301	\$ 719	-	-	-	-	\$ 33,808	12	\$ 19,938	-			
Proceeds.....		\$ 37,136	\$ 347	\$ 843	\$ 724	h/	-	-	-	\$ 35,212	10	-	-			
Ghee:																
Quantity.....	Pound	1,589	h/	-	-	-	-	-	-	-	-	-	1,589			
Cost Value.....		\$ 1,232	-	-	-	-	-	-	-	-	-	-	\$ 1,232			
Proceeds.....		\$ -	-	-	-	-	-	-	-	-	-	-	-			

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Table 4 (continued)

DISPOSITION OF INVENTORIES ACQUIRED
UNDER THE PRICE-SUPPORT PROGRAM BY TYPE OF DISPOSITION
FISCAL YEAR 1965

(All Figures in Thousands)

COMMODITY AND ITEM	Unit of Measure	Total Dispositions	Sales for Dollars		Public Law 480 (Export) \$/			Barter (Export) \$/	Payment-in-Kind \$/		Transfers to Other Government Agencies		Donations \$/
			Domestic \$/	Export \$/	Title I	Title II	Title IV		Unrestricted Use	Export	Domestic \$/	Export	
DESIGNATED NONBASIC COMMODITIES: (Continued)													
Milk, Dried:													
Quantity.....	Pound	789,898	11,236	157,918	3,455	28,989	-	160	-	357	45,948	-	129,310
Cost Value.....		\$ 120,977	\$ 1,705	\$ 23,633	\$ 517	\$ 4,475	-	\$ 24	-	\$ 53	\$ 7,254	-	\$ 412,525
Proceeds.....		\$ 24,316	\$ 1,320	\$ 9,437	\$ 566	\$ 4,986	-	\$ 36	-	\$ 45	\$ 7,926	-	\$ 62,787
Milk, Fluid:													
Quantity.....	Pound	642,476	-	-	-	-	-	-	-	-	-	-	642,476
Cost Value.....		\$ 26,213	-	-	-	-	-	-	-	-	-	-	\$ 26,213
Proceeds.....		-	-	-	-	-	-	-	-	-	-	-	-
Barley:													
Quantity.....	Bushel	14,715	3,009	1,238	2,800	-	174	843	10	6,618	23	-	-
Cost Value.....		\$ 13,472	\$ 2,783	\$ 1,130	\$ 2,557	-	\$ 159	\$ 769	\$ 9	\$ 6,043	\$ 22	-	-
Proceeds.....		\$ 17,532	\$ 2,284	\$ 1,245	\$ 4,900	-	\$ 334	\$ 985	\$ 9	\$ 7,748	\$ 27	-	-
Grain Sorghum:													
Quantity.....	Bushel	141,781	12,624	79,828	3,914	1,073	257	4,986	20,663	18,170	13	-	228
Cost Value.....		\$ 137,305	\$ 12,263	\$ 77,532	\$ 3,801	\$ 1,205	\$ 250	\$ 4,843	\$ 19,505	\$ 17,648	\$ 12	-	\$ 22
Proceeds.....		\$ 169,069	\$ 13,261	\$ 95,503	\$ 7,493	\$ 2,222	\$ 505	\$ 6,025	\$ 22,270	\$ 21,766	\$ 24	-	\$ 24
Oats:													
Quantity.....	Bushel	12,600	10,264	-	332	-	-	-	44	1,936	24	-	-
Cost Value.....		\$ 7,456	\$ 6,051	-	\$ 200	-	-	-	\$ 25	\$ 1,166	\$ 14	-	-
Proceeds.....		\$ 7,203	\$ 5,225	-	\$ 561	-	-	-	\$ 27	\$ 1,360	\$ 30	-	-
Rye:													
Quantity.....	Bushel	653	169	-	274	-	2	-	-	208	-	-	-
Cost Value.....		\$ 697	\$ 178	-	\$ 293	-	\$ 2	-	-	\$ 224	-	-	-
Proceeds.....		\$ 933	\$ 157	-	\$ 498	-	\$ 3	-	-	\$ 275	-	-	-
Lung Oil:													
Quantity.....	Pound	113	113	-	-	-	-	-	-	-	-	-	-
Cost Value.....		\$ 35	\$ 35	-	-	-	-	-	-	-	-	-	-
Proceeds.....		\$ 31	\$ 31	-	-	-	-	-	-	-	-	-	-
OTHER NONBASIC COMMODITIES:													
Beans, Dry Edible:													
Quantity.....	Qrt.	1,658	453	6	-	134	-	-	-	-	-	-	844
Cost Value.....		\$ 12,292	\$ 3,215	\$ 47	-	\$ 959	-	-	-	-	-	-	\$ 6,508
Proceeds.....		\$ 4,710	\$ 3,492	\$ 48	-	\$ 1,170	-	-	-	-	-	-	-
Cottonseed Oil, Crude:													
Quantity.....	Pound	37,764	37,764	-	-	-	-	-	-	-	-	-	-
Cost Value.....		\$ 4,105	\$ 4,105	-	-	-	-	-	-	-	-	-	-
Proceeds.....		\$ 4,105	\$ 4,105	-	-	-	-	-	-	-	-	-	-
Cottonseed Oil, Refined:													
Quantity.....	Pound	135,034	135,034	-	-	-	-	-	-	-	-	-	-
Cost Value.....		\$ 15,159	\$ 15,159	-	-	-	-	-	-	-	-	-	-
Proceeds.....		\$ 15,275	\$ 15,275	-	-	-	-	-	-	-	-	-	-
(Salad Oil):													
Quantity.....	Pound	155,777	5	4,004	-	18,544	-	-	-	-	-	-	1
Cost Value.....		\$ 29,128	\$ 1	\$ 753	-	\$ 3,430	-	-	-	-	-	-	\$ 24,944
Proceeds.....		\$ 4,026	\$ 2	\$ 526	-	\$ 3,498	-	-	-	-	-	-	-
Flaxseed:													
Quantity.....	Bushel	8,350	2,651	5,307	69	-	-	-	-	323	-	-	-
Cost Value.....		\$ 24,730	\$ 7,848	\$ 15,719	\$ 206	-	-	-	-	\$ 957	-	-	-
Proceeds.....		\$ 25,332	\$ 8,284	\$ 15,743	\$ 261	-	-	-	-	\$ 1,044	-	-	-
Soybeans:													
Quantity.....	Bushel	12,199	12,199	-	-	-	-	-	-	-	-	-	-
Cost Value.....		\$ 28,545	\$ 28,545	-	-	-	-	-	-	-	-	-	-
Proceeds.....		\$ 30,084	\$ 30,084	-	-	-	-	-	-	-	-	-	-
Vegetable Oil Products:													
Quantity.....	Pound	88,673	1	-	-	26,817	-	-	-	-	-	-	61,855
Cost Value.....		\$ 15,788	\$ h/	-	-	\$ 4,352	-	-	-	-	-	-	\$ 11,436
Proceeds.....		\$ 4,455	\$ 4	-	-	\$ 4,451	-	-	-	-	-	-	-
TOTAL AGRICULTURAL COMMODITIES:													
Cost Value.....		\$ 2,448,132	\$ 396,074	\$ 318,218	\$ 107,936	\$ 61,977	\$ 13,510	\$ 136,478	\$ 754,240	\$ 173,882	\$ 101,485	\$ 10,250	\$ 163,106
Proceeds.....		\$ 2,007,071	\$ 352,754	\$ 275,568	\$ 162,417	\$ 81,754	\$ 19,529	\$ 117,296	\$ 722,119	\$ 163,211	\$ 105,732	\$ 6,691	\$ 210,976
EXCHANGE COMMODITIES:													
Cost Value.....		\$ 39,215	-	-	-	-	-	-	-	-	-	-	-
Proceeds.....		\$ 40,646	-	-	-	-	-	-	-	-	-	-	-
TOTAL PRICE-SUPPORT PROGRAM:													
Cost Value.....		\$ 2,487,347	\$ 396,074	\$ 318,218	\$ 107,936	\$ 61,977	\$ 13,510	\$ 136,478	\$ 754,240	\$ 173,882	\$ 101,485	\$ 10,250	\$ 163,106
Proceeds.....		\$ 2,047,717	\$ 352,754	\$ 275,568	\$ 162,417	\$ 81,754	\$ 19,529	\$ 117,296	\$ 722,119	\$ 163,211	\$ 105,732	\$ 6,691	\$ 210,976

* Denotes negative item which results from adjustment of prior activity or inventory gains.

h/ Includes inventory gains, losses and related recoveries.

b/ Includes some sales which may be applied subsequently to barter contracts or P. L. 480, Title I authorizations. Any such reclassification will cause downward adjustments in "Sales for Dollars - Export".

c/ Proceeds represent the Corporation's full investment amount charged to the statutory limitation. Investment is computed at values designed to recover for CCC all costs related to these disposals.

d/ Proceeds represent exchange value of strategic or other material to be delivered under contracts.

e/ Commodities delivered as payment in kind for exportation under P. L. 480 are included in P. L. 480 (Export) Titles I and IV columns and are not included in this column.

f/ Includes sales to Section 32 at lower of cost or market for distribution to relief or welfare outlets.

g/ Includes donations under Sections 202, 416, 407 and miscellaneous donations under various other authorizations.

h/ Less than five hundred.

i/ Includes sales of rough rice to processors under conditional contracts providing for repurchase as milled rice by CCC.

j/ Includes sales of crude and once-refined cottonseed oil to processors under conditional contracts providing for repurchase as fully refined oil by CCC.

k/ Includes sales of flaxseed to processors under conditional contracts providing for repurchase as flaxseed oil by CCC.

Table 5

TOBACCO PRICE-SUPPORT LOAN ACTIVITY FOR FISCAL YEAR 1965

Type	Loans Outstanding July 1, 1964		Loans Made July 1, 1964 Through June 30, 1965		Liquidation of Loan Collateral		Loans Outstanding June 30, 1965	
	Quantity :(1,000 lbs)	Value (\$1,000)	Quantity :(1,000 lbs)	Value (\$1,000)	Quantity :(1,000 lbs)	Value (\$1,000)	Quantity :(1,000 lbs)	Value (\$1,000)
Burley	259,840	183,123	98,590	72,406	69,830	51,633	288,600	203,896
Flue-Cured	592,021	437,865	240,218	179,537	55,999	39,445	776,240	577,957
Other	90,683	45,893	18,245	10,439	24,404	11,859	84,524	44,473
Total	942,544	666,881	357,053	262,382	150,233	102,937	1,149,364	826,326

1. DOLLAR SALES

(a) Commercial Dollar Sales

Commercial dollar sales accounted for 29% of total CCC dispositions during Fiscal Year 1965, a decrease of 12% below the 41% for the previous year. (See Table 6).

Dollar sales under the CCC Export Credit Sales Program totaled \$95,130,022. (See Table 7). In February 1965 the program was revised to permit financing from privately-owned stocks through the issuance of export commodity certificates in accordance with GSM-3. Commodities most frequently purchased under the CCC credit program during Fiscal Year 1965 were corn, cotton, grain sorghums, and wheat.

Domestic dollar sales of nonfat dry milk, grain sorghums and flaxseed were down but domestic dollar sales of corn, peanuts, soybeans, and wheat increased. Dollar sales for export of grain sorghums, flaxseed and corn were also up although export dollar sales of wheat and dairy products were down.

Overall commercial dollar sales were 36% below Fiscal Year 1964. Increased use of payment-in-kind certificates accounted for the difference.

(b) Dollar Credit Sales Under Title IV, PL 480 Sales Agreements

The export market value of commodities and applicable ocean transportation costs included in Title IV agreements or amendments to agreements entered into during Fiscal Year 1965 is estimated at \$209.6 million compared with the total of \$118.1 million in Fiscal Year 1964, \$87.2 million in fiscal year 1963, and \$56.7 million in fiscal year 1962. Exports of commodities under all Title IV government-to-government agreements totaled \$172.8 million in fiscal year 1965 compared with \$47.7 million in fiscal year 1964, \$60.0 million in fiscal year 1963 and \$19.4 million in fiscal year 1962.

From the date the first Title IV government-to-government agreement was signed in August 1961 through October 15, 1965, a total of 68 agreements, amendments and extensions of such agreements have been entered into with the governments of 23 countries, providing for the export financing of surplus agricultural commodities valued at \$509.5 million including applicable ocean transportation costs. All but approximately \$22 million of the total is composed of CCC price support commodities. About 9 percent of the value of commodities exported under the Title IV program through June 1965 came out of CCC stocks. The total market value of commodities exported through June 1965 under these agreements, including applicable ocean transportation costs was approximately \$300 million. Through the same date,

Table 6

DISPOSITIONS OF CCC INVENTORIES ACQUIRED UNDER
PRICE SUPPORT-PROGRAMS DURING THE YEAR ENDING JUNE 30, 1965

DISPOSITION METHOD	DISPOSITIONS	PERCENT OF TOTAL DISPOSITIONS <u>1/</u> <u>2/</u>
(Cost Value in 1,000 Dollars)		
<u>Sales for Dollars</u>		
Domestic	396,074	16
Export	318,218	13
Total	714,292	29
<u>Public Law 480</u>		
Title I	107,936	4
Title IV	13,510	1
Total	121,446	5
<u>Barter</u>	136,478	5
<u>Payment-in-Kind</u>		
(a) Unrestricted use	754,240	30
(b) PIK Export	173,882	7
Total	928,122	37
<u>Transfers</u>		
Domestic	140,700	6
Export	10,250	3/
Total	150,950	6
<u>Donations</u>		
Domestic	163,106	7
Export, including Title II of Public Law 480	272,953	11
Total	436,059	18
 TOTAL	 2,487,347	 100

- 1/ Fiscal Year 1965
2/ Rounded to nearest percent
3/ Less than five tenths of one percent

Table 7

SALES OF COMMODITIES UNDER THE CCC EXPORT CREDIT SALES PROGRAM

COMMODITY	3/30/56-6/30/62	7/1/62-6/30/63	7/1/63-6/30/64	7/1/64-6/30/65	3/30/56-6/30/65
Barley	\$ 2,191,167	\$ 2,532,498	\$ 4,664,324	\$ 735,467	\$ 10,123,456
Beans	1,947,625				1,947,625
Butter			99,812	20,015	119,827
Corn	59,202,864	37,673,668	20,157,789	46,449,245	163,483,566
Cotton	361,111		39,823,310	27,997,856	68,182,277
Grain Sorghums	15,430,854	11,191,799	27,515,184	12,501,215	66,639,052
Gum Rosin	310,300				310,300
Non-fat Dry Milk	1,383,088				1,383,088
Oats		188,624			188,624
Rice	2,104,824			354,300	2,459,124
Tobacco	2,733,797	8,038,112	741,076	236,734	11,749,719
Wheat	23,117,718	16,544,897	25,100,752	6,835,190	71,598,557
TOTALS	\$108,783,348	\$76,169,598	\$118,102,247	\$95,130,022	\$398,185,215

Table 8

Commodity	Beginning Date of Payment-in- Kind Program	Unit	Quantities from		Quantities Redeemed from CCC Stocks
			Commercial Stocks Earning PIK Certificates	(All Figures in Thousands)	
Wheat	Sept. 4, 1956	Bu.	6,408,631		1,032,705
Corn	May 12, 1958	Bu.	465,784		143,426
Barley	July 1, 1958	Bu.	242,103		71,958
Oats	July 1, 1958	Bu.	71,470		12,711
Grain Sorghums	July 1, 1958	Bu.	276,353		84,597
Rye	July 1, 1958	Bu.	16,642		9,183
Rice	Dec. 15, 1958	Cwt.	140,551		9,318
Flaxseed	April 16, 1965	Bu.	1,072		393
Cotton	May 29, 1958	Bales	23,210		5,728
Nonfat Dry Milk	March 6, 1962	Lbs.	791,550		1,934
Butter	November 1, 1963	Lbs.	109,029		1,519
Milkfat Products and Cheese	November 1, 1963	Lbs.	12,877		87

total repayments by foreign governments have totaled \$15.6 million of which \$10.9 million represented amortization of principal amounts financed by CCC and \$4.7 million was interest.

In addition to the above agreements with the governments of friendly nations, three agreements have also been signed under the Title IV, PL 480 legislative provisions which authorize the Secretary of Agriculture to enter into long-term supply and credit agreements with U.S. or foreign private trade entities. As of October 15, 1965, approximately \$358,000 of commodities have been exported out of the total of \$38.8 million of U.S. surplus agricultural commodities included in the first three Title IV private trade agreements entered into as of such date. Several other proposed agreements with private trade entities are in advanced stages of negotiation.

2. PAYMENT-IN-KIND PROGRAMS

(a) Feed Grain Program

Sales of feed grains under this program accounted for 30% of total CCC dispositions during Fiscal Year 1965. (See Table 6). This program was designed to cut back production of feed grains (thereby reducing CCC costs and costs to the taxpayer) but at the same time also assure feed grain producers improved farm income. The program provides for the voluntary reduction of feed grain acreage from the 1959-60 base. Producers who make the reductions receive payments for diverting the acreage to conservation uses and also qualify for price support. Cooperators who make the necessary acreage reductions may be issued certificates which may be redeemed in feed grains or the cooperators may designate CCC as their agent to market their certificates. Non-cooperators are not eligible for price support. Through sale of certificates rights CCC recovers the money paid to producers. Redemptions of certificate rights during the marketing year were made at market prices but not less than the loan rate plus reasonable carrying charges. Redemptions are not subject to Section 407 of the Agricultural Act of 1949 which requires that CCC not sell for unrestricted use any basic agricultural commodity or storable non-basic commodity at less than five percent above the current support price plus reasonable carrying charges.

(b) Export Payment-In-Kind Programs

Dispositions under these programs accounted for 7% of the total CCC sales and dispositions during Fiscal Year 1965. (See Table 6). This is slightly lower than last year. Feed grains continued to be fully competitive in world markets and required no export payment allowances. Quantities of commodities from commercial stocks earning payment-in-kind certificates and quantities of commodities redeemed from CCC stocks since inauguration of the payment-in-kind programs through June 30, 1965 are shown in Table 8.

3. BARTER

Barter transactions accounted for approximately 5% of the CCC dispositions during Fiscal Year 1965, about the same as last year. (See Table 6).

The emphasis was upon procurement for other government agencies under barter transactions. In spite of the overall general restriction of barter, corn, cotton, grain sorghums, and tobacco showed gains.

4. SALES FOR FOREIGN CURRENCIES

Title I sales are largely from privately-owned stocks and thus represent a negligible percentage of CCC's total dispositions. The quantities and values shown in Table 4 under PL 480 Title I column represent amounts of commodities redeemed by certificates earned under payment-in-kind programs for exportation of commodities shipped under Title I PL 480 except where the commodity is not subject to a payment-in-kind program.

5. TRANSFERS AND DONATIONS

Transfers from CCC inventories to other U. S. government agencies and donations of surplus commodities for domestic and foreign use accounted for approximately 24% of all CCC sales and dispositions. Although transfers were roughly \$100 million above those of the previous year, domestic and export donations decreased by \$300 million.

PART II

THE METHODS OF DISPOSITION TO BE UTILIZED AND THE ESTIMATED QUANTITIES THAT CAN BE SOLD OR DISPOSED OF DURING THE SUCCEEDING TWELVE MONTHS

The methods of sales and dispositions to be utilized and the estimated quantities that can be moved during the succeeding 12 months in 1965-66 are given in tables on pages 19 through 42. These tables also reflect the estimated inventories as of June 30, 1966.

EXPLANATION OF COMMODITY TABLES

Line 1 of each commodity table shows the CCC inventory for that commodity as of June 30, 1965.

Line 2 gives the estimated amount of the commodity which will come into CCC inventory between July 1, 1965 and June 30, 1966.

Line 3 is the sum of lines 1 and 2 and shows the total CCC supplies expected to be available for sale or other disposition during the year-July 1, 1965 through June 30, 1966.

The estimated sales and dispositions through the various methods described in Part I and Appendix I for the Fiscal Year 1966 are given in lines under item 4. A word of explanation is offered concerning dollar sales (line 4 A) and payment-in-kind dispositions. Dollar sales estimates, whether export or domestic, are limited to sales from CCC stocks. Quantities shown for payment-in-kind dispositions likewise come from CCC stocks, but they represent the estimated value of redeemed certificates which will be earned on the export of commodities primarily from commercial rather than from CCC stocks.

Although the tables show sales under Title I these sales are really payment-in-kind dispositions as far as PIK commodities are concerned. They are listed under Title I for reimbursement purposes.

Dispositions under item 4 are all made from CCC stocks.

Line 5 shows the estimated remaining CCC inventory as of June 30, 1966.

The United States Code citations for the various legal authorities briefly cited in these tables are as follows:

P. L. 480, Title I	7 U.S.C. 1701-1709
P. L. 480, Title II	7 U.S.C. 1721-1724
P. L. 480, Title IV	7 U.S.C. 1731-1736
Section 407	7 U.S.C. 1427
Section 416	7 U.S.C. 1431
Section 202	7 U.S.C. 1446a
Section 402	22 U.S.C. 1922
Section 32	7 U.S.C. 612c
Section 308	7 U.S.C. 1697

COTTON

(Bales)

	Upland	Extra Long Staple
1. CCC Inventory 6/30/65	6,639,909	99,300
2. Takeover 7/1/65 - 6/30/66	4,970,000	29,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	11,609,909	128,300
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66		
A. Dollar Sales		
1. Unrestricted use (Export)	1,150,000	25,000
B. P. L. 480		
1. Title I	325,000	15,000
2. Title II	24,909	
3. Title IV	150,000	
C. Barter	350,000	5,000
D. Payment-in-Kind (Domestic)	2,010,000	
E. Total Dispositions	4,009,909	45,000
5. Estimated CCC Inventory 6/30/66	7,600,000	83,300

WHEAT

	(Bushels)
1. CCC Inventory 6/30/65	646,309,505
2. Takeover 7/1/65 - 6/30/66	188,690,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	834,999,505
4. Estimated Disposition from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	10,000,000
2. Domestic	10,000,000
B. Payment-in-Kind	
1. Domestic	
2. Export	73,949,505
C. P. L. 480	
1. Title I	60,000,000
2. Title II	32,000,000
3. Title IV	12,000,000
D. Barter	20,000,000
E. Other (IWA)	37,050,000
F. Transfers to Government Agencies - Export	
G. Donations	
1. Export - Sec. 416	5,000,000
2. Other (Research)	
H. Total Dispositions	259,999,505
5. Estimated CCC Inventory 6/30/66	575,000,000

WHEAT FLOUR

	(Pounds)
1. CCC Inventory 6/30/65	682,048
2. Takeover 7/1/65 - 6/30/66	1,809,318,000
Total available for sale or other	
3. disposition during F. Y. 1966 (Line 1 plus line 2)	1,810,000,048
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	
B. P. L. 480	
1. Title I	
2. Title II	500,000,000
3. Title IV	
C. Barter	
D. Transfers	
1. Export Sec. 402 (ICA)	
2. Domestic Sec. 32	
E. Donations	
1. Export Sec. 416	810,000,000
2. Domestic Sec. 416	500,000,048
F. Emergency Feed	
G. Total Dispositions	1,810,000,048
5. Estimated CCC Inventory 6/30/66	

ROLLED WHEAT

	(Pounds)
1. CCC Inventory 6/30/65	424,012
2. Takeover 7/1/65 - 6/30/66	164,576,000
Total available for sale or other	
3. disposition during F. Y. 1966 (Line 1 plus line 2)	165,000,012
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	
B. P. L. 480	
1. Title I	
2. Title II	5,000,000
3. Title IV	
C. Barter	
D. Transfers	
1. Export Sec. 402 (ICA)	
2. Domestic Sec. 32	
E. Donations	
1. Export Sec. 416	100,000,012
2. Domestic Sec. 416	60,000,000
F. Emergency Feed	
G. Total Dispositions	165,000,012
5. Estimated CCC Inventory 6/30/66	

BULGUR

	(Pounds)
1. CCC Inventory 6/30/65	1,455,000
2. Takeover 7/1/65 - 6/30/66	428,545,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	430,000,000
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	
B. P. L. 480	
1. Title I	
2. Title II	75,000,000
3. Title IV	
C. Barter	
D. Transfers	
1. Export Sec. 402 (ICA)	
2. Domestic Sec. 32	
E. Donations	
1. Export Sec. 416	350,000,000
2. Domestic Sec. 416	5,000,000
F. Emergency Feed	
G. Total Dispositions	430,000,000
5. Estimated CCC Inventory 6/30/66	

CORN

	(Bushels)
1. CCC Inventory 6/30/65	482,973,888
2. Takeover 7/1/65 - 6/30/66	102,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	584,973,888
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	35,000,000
2. Domestic	35,000,000
B. Payment-in-Kind	
1. Domestic (Special Feed Grain Program)	42,973,888
2. Export	1,200,000
C. P. L. 480	
1. Title I	1,000,000
2. Title II	7,800,000
3. Title IV	1,000,000
D. Barter	10,000,000
E. Other (Wildlife Feed)	
F. Donations	
1. Export Sec. 416	1,000,000
2. Domestic	
G. Total Dispositions	134,973,888
5. Estimated CCC Inventory 6/30/66	450,000,000

CORNMEAL

	(Pounds)
1. CCC Inventory 6/30/65	6,359,000
2. Takeover 7/1/65 - 6/30/66	893,641,000
Total available for sale or other	
3. disposition during F. Y. 1966 (Line 1 plus line 2)	900,000,000
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	
B. P. L. 480	
1. Title I	
2. Title II	100,000,000
3. Title IV	
C. Barter	
D. Transfers	
1. Export Sec. 402 (ICA)	
2. Domestic Sec. 32	
E. Donations	
1. Export Sec. 416	630,000,000
2. Domestic Sec. 416	170,000,000
F. Emergency Feed	
G. Total Dispositions	900,000,000
5. Estimated CCC Inventory 6/30/66	

GRAIN SORGHUMS

	(Bushels)
1. CCC Inventory 6/30/65	564,302,246
2. Takeover 7/1/65 - 6/30/66	176,000,000
Total available for sale or other	
3. disposition during F. Y. 1966 (Line 1 plus line 2)	740,000,000
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	123,000,000
2. Domestic	5,000,000
B. Payment-in-Kind	
1. Domestic (Special Feed Grain Program)	5,000,000
2. Export	5,000,000
C. P. L. 480	
1. Title I	2,000,000
2. Title II	3,000,000
3. Title IV	2,000,000
D. Barter	15,000,000
E. Donations - Domestic 407	
F. Total Dispositions	160,000,000
5. Estimated CCC Inventory 6/30/66	580,000,000

BARLEY

	(Bushels)
1. CCC Inventory 6/30/65	19,542,119
2. Takeover 7/1/65 - 6/30/66	5,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	24,542,119
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	1,000,000
2. Domestic	3,000,000
B. Payment-in-Kind	
1. Exports	10,042,119
2. Domestic (Special Feed Grain Program)	
C. P. L. 480	
1. Title I	
2. Title II	
3. Title IV	
D. Barter	
E. Total Dispositions	14,042,119
5. Estimated CCC Inventory 6/30/66	10,500,000

OATS

	(Bushels)
1. CCC Inventory 6/30/65	42,218,163
2. Takeover 7/1/65 - 6/30/66	23,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	65,218,163
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	8,018,163
B. Payment-in-Kind	
1. Export	7,000,000
2. Domestic (Special Feed Grain Program)	
C. Total Dispositions	15,018,163
5. Estimated CCC Inventory 6/30/66	50,200,000

RYE

	(Bushels)
1. CCC Inventory 6/30/65	5,922,030
2. Takeover 7/1/65 - 6/30/66	3,978,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	9,900,030
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	1,000,000
B. PIK Export	2,000,000
C. Total Dispositions	3,000,000
5. Estimated CCC Inventory 6/30/66	6,900,030

RICE

(Hundredweight)		
	ROUGH	MILLED
1. CCC Inventory 6/30/65	1,311,955	210
2. Takeover 7/1/65 - 6/30/66	2,188,000	1,390,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	3,499,955	1,390,210
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66		
A. Dollar Sales		
1. Export		
2. Domestic	700,000	
B. Payment-in-Kind		
1. Commercial Exports	300,000	
C. P. L. 480		
1. Title I		
2. Title IV		
D. Barter		
E. Donations		
1. Export		
2. Domestic - Sec. 416		1,390,000
F. Total Dispositions	1,000,000	1,390,000
5. Estimated CCC Inventory 6/30/66	2,499,955	210

DRY EDIBLE BEANS

	(Hundredweight)
1. CCC Inventory 6/30/65	476,348
2. Takeover 7/1/65 - 6/30/66	177,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	653,348
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	14,000
2. Domestic	200,000
B. P. L. 480	
1. Title I	
2. Title II	
3. Title IV	
C. Donations	
1. Export - Sec. 416	150,000
2. Domestic - Sec. 416	289,348
D. Total Dispositions	653,348
5. Estimated CCC Inventory 6/30/66	

SOYBEANS

	(Bushels)
1. CCC Inventory 6/30/65	2,492
2. Takeover 7/1/65 - 6/30/66	
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	2,492
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	2,492
B. Barter	
C. Total Dispositions	2,492
5. Estimated CCC Inventory 6/30/66	

FLAXSEED

	(Bushels)
1. CCC Inventory 6/30/65	2,448,827
2. Takeover 7/1/65 - 6/30/66	6,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	8,448,827
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	1,449,000
B. P. L. 480	
1. Title I	
2. Title II	
3. Title IV	
C. Payment-in-Kind (Export)	1,000,000
D. Transfers	
1. Export - Sec. 402 (ICA)	
2. Domestic - Sec. 32	
E. Donations	
1. Export	
2. Domestic	
F. Emergency Feed	
G. Total Dispositions	2,449,000
5. Estimated CCC Inventory 6/30/66	5,999,827

VEGETABLE OIL PRODUCTS

	(Pounds)
1. CCC Inventory 6/30/65	3,417,914
2. Takeover 7/1/65 - 6/30/66	275,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	278,417,914
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	
B. P. L. 480	
1. Title I	
2. Title II	50,000,000
3. Title IV	
C. Barter	
D. Transfers	
1. Export - Sec. 402 (ICA)	
2. Domestic - Sec. 32	
E. Donations	
1. Export - Sec. 308 (oils)	225,417,914
2. Domestic - Sec. 416	
F. Emergency Feed	
G. Total Dispositions	275,417,914
5. Estimated CCC Inventory 6/30/66	3,000,000

PEANUTS

	(Pounds)	
	Farmers's Stock	Shelled
1. CCC Inventory 6/30/65		43,194,888
2. Takeover 7/1/65 - 6/30/66		170,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)		213,194,888
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66		
A. Dollar Sales		
1. Export		90,000,000
2. Domestic		96,195,000
B. Transfers		
1. Exports - Sec. 402 (ICA)		
2. Domestic - Sec. 32		
C. Processed to Shelled Peanuts		
D. Total Dispositions		186,195,000
5. Estimated CCC Inventory 6/30/66		26,999,888

BUTTER AND BUTTER OIL

	(Pounds)	
	Butter	Butter Oil
1. CCC Inventory 6/30/65	158,990,918	1,592,184
2. Takeover 7/1/65 - 6/30/66	270,000,000	1,600,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	428,990,918	3,192,184
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66		
A. Dollar Sales		
1. Export	14,000,000	
2. Domestic	10,000,000	
B. Transfers to Government Agencies		
1. Export	16,000,000	1,600,184
2. Domestic	191,000,000	
C. Barter	5,000,000	
D. P. L. 480		
1. Title I	10,000,000	
2. Title II		
3. Title IV	3,000,000	
E. Donations		
1. Export - Sec. 416		1,592,000
2. Domestic - Sec. 202	28,000,000	
- Sec. 416		
- Sec. 210	1,499,918	
F. Total Dispositions	278,499,918	3,192,184
5. Estimated CCC Inventory 6/30/66	150,491,000	

CHEESE AND GHEE

	(Pounds)	
	Cheese	Ghee
1. CCC Inventory 6/30/65	2,088,565	
2. Takeover 7/1/65 - 6/30/66	40,000,000	
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	42,088,565	
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66		
A. Dollar Sales		
1. Export	2,999,565	
2. Domestic		
B. Transfers to Government Agencies - Domestic	33,500,000	
C. P. L. 480		
1. Title I	1,000,000	
2. Title II		
D. Donations		
1. Export		
2. Domestic - Sec. 202	2,000,000	
- Sec. 210	500,000	
- Other		
E. Total Dispositions	39,999,565	
5. Estimated CCC Inventory 6/30/66	2,089,000	

NONFAT DRY MILK

	(Pounds)
1. CCC Inventory 6/30/65	282,620,291
2. Takeover 7/1/65 - 6/30/66	840,000,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	1,122,620,291
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	275,000,291
2. Domestic	10,000,000
B. P. L. 480	
1. Title I	30,000,000
2. Title II	50,000,000
3. Title IV	
C. Barter	5,000,000
D. Transfers to Government Agencies - Domestic	181,000,000
E. Donations	
1. Export - Sec. 416	450,000,000
2. Domestic - Sec. 416	
3. Other	500,000
F. Total Dispositions	1,001,500,291
5. Estimated CCC Inventory 6/30/66	121,120,000

LINSEED OIL

	(Pounds)
1. CCC Inventory 6/30/65	80,000,000
2. Takeover 7/1/65 - 6/30/66	
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	80,000,000
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
5. Estimated CCC Inventory 6/30/66	80,000,000

TUNG OIL

	(Pounds)
1. CCC Inventory 6/30/65	14,716,426
2. Takeover 7/1/65 - 6/30/66	
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	14,716,426
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales - Export	
B. Total Dispositions	
5. Estimated CCC Inventory 6/30/66	14,716,426

HONEY

	(Pounds)
1. CCC Inventory 6/30/65	
2. Takeover 7/1/65 - 6/30/66	7,074,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	7,074,000
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Transfers - Domestic - Sec. 32	2,074,000
B. Total Dispositions	2,074,000
5. Estimated CCC Inventory 6/30/66	5,000,000

TOBACCO

	(Pounds)
1. CCC Inventory 6/30/65	
2. Takeover 7/1/65 - 6/30/66	23,800,000
3. Total available for sale or other disposition during F. Y. 1966 (Line 1 plus line 2)	23,800,000
4. Estimated Dispositions from CCC Inventory 7/1/65 - 6/30/66	
A. Dollar Sales	
1. Export	
2. Domestic	
B. P. L. 480	
1. Title I	
2. Title II	
3. Title IV	
C. Barter	23,800,000
D. Transfers	
1. Export - Sec. 402 (ICA)	
2. Domestic - Sec. 32	
E. Donations	
1. Export	
2. Domestic	
F. Emergency Feed	
G. Total Dispositions	23,800,000
5. Estimated CCC Inventory 6/30/66	

PART III

A DETAILED PROGRAM FOR THE EXPANSION OF MARKETS FOR SURPLUS

AGRICULTURAL COMMODITIES THROUGH MARKETING AND UTILIZATION

RESEARCH AND IMPROVEMENT OF MARKETING FACILITIES

This part of the report contains illustrative examples of accomplishments in USDA research that may be of special interest to the Congress.

UTILIZATION RESEARCH AND DEVELOPMENT

The Department's Utilization Research and Development is a part of the Nutrition, Consumer and Industrial Use Research, a major segment of the Agricultural Research Service. Utilization research is directed to the expansion of agricultural markets and reduction of processing and distribution costs, thus increasing farm income and consumers' welfare, and reducing excessive carry-over of farm commodities. These UR&D efforts go across the entire horizon of agricultural commodities--foods, feeds, fibers, and industrial products. These objectives are accomplished by developing new and improved agricultural products and economic methods for their manufacture through basic and applied work in chemistry, physics, engineering, and related sciences.

The Department's utilization research investigations in Fiscal Year 1965 were conducted primarily in Federal facilities consisting of four regional laboratories (Albany, Cal.; Peoria, Ill.; New Orleans, La.; and Wyndmoor, Pa.), and eleven field stations (Beltsville, Md.; Washington, D.C.; Olustee and Winter Haven, Fla.; Houma, La.; Raleigh, N.C.; Weslaco, Tex.; Pasadena, Cal.; Honolulu, Hawaii; and Prosser and Puyallup, Washington) in the United States. Research is done also through contracts, grants, and memoranda of understanding with State Experiment Stations, universities, and industry. Other supporting research is accomplished in research institutions of twenty countries in Europe (12), Asia (4), South America (3), and Australia (1), through funds generated by the P.L. 480 program (Agricultural Trade and Development and Assistance Act of 1954, 83rd Congress, 2nd Session).

The USDA utilization research and development program is a coordinated effort of basic and applied research to give optimum returns in the shortest practical time. At present, these efforts are devoted to the following areas:

Cereal Grains and Forages. Emphasis on development of new uses for corn and wheat, with continuing investigations on rice, barley, oats, sorghum, and alfalfa and other legume and grass forages:

New and improved food products -- new puffed bulgur products; textural improvements in the emergency wheat wafer; milk-like products from wheat for use in developing countries; new foods made possible by "deep-milling" of rices; fermented wheat foods (tempeh).

Basic research on cereal grains -- wheat protein interactions, particularly the cohesive properties of gluten; wheat enzyme activities; effects of lipoprotein complexes on dough properties; bread flavor formation elucidated by model systems; characterizing spores and spore-like bodies, produced by culture fermentation on grain-based media, as a key to developing control measures for the Japanese beetle.

New safeguards for cereal grain products -- processes for removal of radioactive contaminants from wheat and wheat flours; methods for reducing microorganisms in flours; survey of possible aflatoxin infestations in rice, wheat, sorghum, corn, oats in trade channels.

Improved feeds -- biological activity of minor alfalfa components affecting growth responses; methods for making alfalfa fiber fraction more digestible by livestock; improved dehydrated coastal bermuda grass and pearl millet products; possible relation of mycotoxins in forages to fescue foot disease; new high-yielding strains of B-carotene-producing microorganisms; processing effects upon carotenoids in corn.

Industrial uses -- processes for crosslinking of pulp-starch-xanthate in paper products; development of better pine plywood bonding materials from soyflour-blood-dialdehyde starch; new industrial products through graft polymers of starches and flours; improved starch derivatives for use in water-emulsion paints; improved corn dry milling procedures.

Cotton and Wool. New functional properties imparted to cotton and wool through chemical, physical, and mechanical processing research and development, supported by comprehensive fundamental studies of fiber properties and modification:

Cotton chemical processing -- processes to improve wrinkle, chlorine, and abrasion resistance of wash-wear cottons; multi-functional, single-application treatments to give all desired wash-wear properties including improved luster; better stretch cottons with wash-wear characteristics; processes to improve moisture absorptivity and drying rates of wash-wear fabrics; weather- and flame-resistant treatments for cotton; further improved cotton battings; cellulose swelling related to abrasion resistance of cottons, radiation-induced graft reactions of cotton; cellulose etherification mechanisms.

Cotton mechanical processing -- better methods of feeding the cotton card; devices for removal of short fibers from lint cotton; aerodynamic methods for individualizing cotton fibers; frictional behavior important in mechanical processing of cotton fibers.

Easy-care wool finishes -- continued research on the WURLAN processes for wool fabrics and knitted goods to reduce treatment costs, to develop more compact and efficient treating equipment, and to define trade-wide standards.

Other ways to improve wool -- processes that provide oil-, water-, and stain- repellency for wool; lubricants to facilitate high-speed processing of wool; polymeric treatments for multiple-purpose finishing of wool; various effects of irradiation on wool fibers.

Fruits and Vegetables. Development of convenience-in-use fruit and vegetable products, and processing equipment for their economic manufacture, augmented by fundamental investigations on factors affecting color, texture, and flavor:

Citrus and sub-tropical fruits -- new food products from desert grapefruit; new de-bittered citrus juices and blends, including assay methods for measuring bitterness; improved storage and quality of foam-mat-dried citrus powders; new dehydrated banana products; new uses for guava, papaya, and passion fruits.

Deciduous fruits and berries -- new foam-mat-dried berry purees and cranberry juice; modified drum-dried apple sauce and apricot products; osmotic concentration of grape and other juices without application of heat; improved apple juicing system; methods for controlling microorganisms in cider; explosion-puff-drying of apples and other fruits; factors affecting flavor of cherry products; flavor and aroma studies to improve peach products.

Vegetables and potatoes -- elucidation of spore heat resistance affecting vegetable preservation; quick-cooking whole and powdered lima bean products; factors affecting quality of processed asparagus; new enzyme control methods and vacuum drying technique for tomato products; removal of radioactive fallout from vegetables; studies of enzymes affecting lipid reactivity in vegetable products; further improved explosion-puffed carrots, potatoes and other vegetables; factors affecting quality of frozen French-fried potatoes; enzymes and antioxidants to improve sweetpotato flakes.

Oilseeds. Principal research on soybean, cottonseed, and linseed oils, meals, and related products, with additional investigations on castor, safflower, and selected oilseeds resulting from the new crops screening program:

Industrial uses -- development of practical solvent systems for ozonization of vegetable oils, methods for increasing oxidative stability of cyclic acid derivatives; preparation and characterization of derivatives of oilseed monomers; linseed oil for emulsion paints and protective treatments for concrete; new protective coatings from soybean oil; studies of safflower oil constituents leading to specific industrial uses.

Food uses -- continued studies of selective hydrogenation, particularly for soybean oil; full-fat soy flours for use in developing countries; methods for detecting and controlling toxic metabolites of mold contaminants in oilseed products; relation of selected constituents of peanuts to the formation of flavor and aroma during roasting; new peanut food products such as low-calorie peanuts, chips, flakes, milk-type drinks, baking flour, and confectionery goods; processes for making peanut flours and cottonseed flours for use in developing countries; removal of off-flavor and off-color from safflower oil; new stabilizers for cottonseed oil emulsions.

Feed uses -- basic information on soybean meal proteins; in-activation of cyclopropenes and control of gossypol in cottonseed meal products.

New and Special Plants. Investigations directed to develop compositional data on plants from world-wide sources in an effort to find alternate crops to fill needs not now met by domestic sources, and to develop new and more economic uses for domestic special plants:

Naval stores products -- new industrial chemicals from pine gum, turpentine, and rosin.

Tobacco -- broadened program to emphasize studies of biologically-active compounds in tobacco leaf and smoke, determination of products formed on burning leaf tobacco, effect of added chemicals on smoke composition, and development of rapid bioassay methods and measurement of tobacco smoke condensates by these methods.

New alternate crops -- industrialization of new oilseeds, particularly the processing of erucic acid oils, and the development of chemical derivatives from these sources; processes to improve flavor and nutrient properties of Crambe meal for feed purposes; industrial uses for Crambe oil and derivatives.

Other crops -- improved techniques for manufacturing maple and sorghum sirups.

Culture collection -- enhancement of the ARS 15-thousand micro-organism collection used for commercial manufacture of antibiotics and other pharmaceuticals, insecticides, and industrial products.

Poultry, Dairy and Animal Products. Development of better and more economic food products from poultry, eggs, milk and meat, and development of new industrial outlets for fats, hides, and other animal, dairy and poultry byproducts:

Poultry products -- structural changes in poultry meat induced by combinations of freeze-thaw-heat cycles; new processes for continuous freeze-drying of raw and cooked chicken meat and other products.

Egg products -- effect of pasteurizing techniques upon egg components and contaminants such as Salmonella; factors contributing to Salmonella contamination in egg products; improved density and rehydration properties of dried egg products; chemical, physical, and enzymic means of altering functional properties of egg white leading to new products.

Dairy products -- constituents responsible for stale flavor in milks; mechanisms for antigelling properties of milk concentrates; improved vacuum-foam-dried whole milks; further improved processes for cheese-making, particularly for increasing flavor intensity; development of a transportable system for removal of radioactive strontium, iodine and cesium from milks.

Meat products -- new formulations and methods of preparing comminuted meat and smoked meat products; time-temperature tolerance studies of frozen meat products; methods for modifying flavor and aroma constituents of meat products; curing organisms to produce desirable flavor in rapidly cured pork products.

Byproducts -- new lubricants and biodegradable detergents from chemically-modified fats; further uses for glutaraldehyde tanning for leathers; regenerated collagen products from hide materials.

EXAMPLES OF RECENT UTILIZATION RESEARCH ACCOMPLISHMENTS

A. Wheat, Corn, and Other Cereal Grains

Process for Reducing the Microbial Content of Flour. Department scientists have developed methods for treating wheats, as well as flours milled from them, to reduce the microbial population in the finished flours to very low levels--1 percent or less of the number present when the treatments are not used. Since the microorganism content of flours is important to the storage life of refrigerated, frozen, and cooked convenience foods, most manufacturers of convenience foods are purchasing flour under specifications designating maximum permissible levels of bacteria, molds, and yeasts. Without special treatments, flours are normally too high in microbial count for use in the convenience foods, despite the fact that 90-95 percent of the

microorganism content of the wheat goes into the millfeed fraction. ARS studies have shown that finished flours can be improved substantially by grain cleaning and the use of certain chemical agents in the washing and tempering waters. However, when the level of microorganisms is high in the wheat, such treatments do not give a low enough count in the flour for critical uses. This difficulty has been overcome by developing processes based on moderate heat treatment of the wheat before milling or of the flour after milling. Processes involving these heat treatments could be adapted to any mill with only moderate additional capital expenditures and operating costs.

Standby Process for Reducing Radioactivity in Wheat. The Department has demonstrated a feasible method for the reduction of the radionuclide, strontium-90, in wheat and its milled products. Radioactive fallout is primarily deposited by rains, substantially in water-soluble form, and deposits on the foliage and seed head of the plant and in the soil. Under present low levels of atmospheric radioactivity, about 80 to 90 percent of the strontium-90 in wheat grain results from surface deposition of fallout and **only** 10 to 20 percent from absorption through the roots. In case of nuclear attack, however, a much higher proportion of the total radioactivity would be surface deposition. A washing procedure using warm dilute solutions of phosphoric or citric acids (well-known food acids), has been developed by USDA scientists which can be integrated into the milling process. By this process, a total of about 75 percent of the strontium-90 was removed from a hard winter wheat blend containing 395 picocuries strontium-90 per kilogram; most of the strontium-90 was in the outer layer of the wheat kernel and was largely removed by the process. The milled fractions, containing much less of the strontium-90, showed decreased radioactivity of 81 percent for the bran, 71 percent for shorts, 45 percent for clears, and 27 percent for patent flour. These results indicate that wheats can be decontaminated sufficiently for food purposes in times of emergency when high-density fallout might occur. Also, the treatment offers the possibility of providing feed fractions that are considerably improved with respect to strontium-90 content.

WORLD Wheat (Bulgur) Attracts Interest Both in the United States and in Asia. Cooked whole-kernel wheat, free of colored bran--called WORLD Wheat--has been substantially improved during this past year by its USDA inventors. Industry has raised several objections to the earlier WORLD Wheat process. These were high water consumption, unsaleable bran byproducts, and difficult effluent disposal. All these objections have now been overcome. Better lye treatment has (a) reduced water use to 8 lbs. per lb. of wheat, (b) produced a compressible bran which can be used in feeds, and (c) resulted in an effluent capable of biological reduction to a harmless state. These improvements have also markedly reduced the cost of the process. A continuous and automatic pilot plant--utilizing the new improved

procedures--has been built to determine the best conditions for future installations. The plant, rated at 250 lbs. per hours, has been used to make several tons of WURLD Wheat which was tested in Hong Kong by Church World Services. Acceptability of the product was found to be outstanding. The new process is competitive in costs with conventional bulgur processing.

High Protein Rice Flours. Department scientists have shown that substantial quantities of rice flours of up to 16 to 20 percent protein can be abraded from the surfaces of either ordinary or parboiled milled rices. Currently available types of milling machinery are used, and thus the cost of producing the flour is minimal. When only three to five percent of the starting rice is milled off, the residual kernels are whiter, cook better, and have negligible breakage. The color improvement is especially prominent with parboiled rice. The rice thus has a slightly higher sales value, perhaps high enough to offset the cost of producing the flour. The bland flours are non-allergenic, low in fiber, and provide high quality protein for infants, for adults with high blood pressure, and for elderly people who have dietary problems with normal sources of food protein. A large potential export outlet for the flour also exists to supply protein for weanling children in developing countries. The cooked flours from parboiled rice can be used directly to make gruels or they can be converted to powdered, soluble beverages in this country and then sold overseas. Further studies are being undertaken in cooperation with UNICEF and with industry to incorporate these flours into new products such as baby foods, beverages, and soups.

B. Cotton

Commercialization of Improved Cotton Batting. Widespread commercialization is assured of "Cotton Flote"--the new chemically treated cotton batting developed at the Southern Division in cooperation with the National Cotton Batting Institute, Textile Waste Association, National Cottonseed Products Association and the Foundation for Cotton Research and Education. One major automobile manufacturer has approved the new batting for use in some of its 1965 models; and one producer of batting has already manufactured and supplied large quantities of Cotton Flote for this purpose. It is anticipated that two other major auto manufacturers will approve the product soon. At least seven other batting producers are piloting the process for making Cotton Flote and there are indications that four or more of these will be in production by late summer of 1965. Because of its improved resilience, dimensional stability, and coherence, Cotton Flote is competitive with all types of cushioning materials, including polyurethanes and foam rubber. As the availability of the new product increases, its use will undoubtedly be extended to the bedding and furniture manufacturing industries. The use of cotton fibers by the automotive, furniture, and bedding industries represents potential cushioning markets exceeding \$1 billion, at the retail level.

C. Fats and Oils

Low-Calorie, Protein-Rich, Whole Peanuts Produced by a New Method. Low-fat peanuts can now be prepared by a new process without the use of solvents. Whole peanuts are mechanically pressed until most of the oil is removed; they are then expanded to their original size, dried, roasted, and salted. This new product contains about 65 percent less fat than conventionally roasted peanuts. Reduction in the fat content results in a corresponding increase in other constituents--for example, the protein content is increased approximately 65 percent. These low-fat peanuts have the shape of conventionally roasted peanuts and closely simulates their texture, flavor, and aroma. Acceptance of these savory, low-calorie peanuts is expected to expand rapidly when the laboratory process is scaled-up to commercial use. This development should strengthen the half-billion dollar retail market value of peanuts derived from the \$200 million farm value of the peanut crop.

New Fire-Retardant Paints Based on Tung Oil. Major progress has been made in the development of water-resistant, intumescent, fire-retardant coatings based on tung oil and its derivatives through research conducted with the cooperation and support of the U.S. Army Engineer Research and Development Laboratories and the Pan American Tung Research and Development League. Although fire-retardant paints are available commercially, they are unsuitable for many domestic, industrial, and military uses, since they lack some requisite conventional properties, such as water resistance, and thus cannot be applied to exteriors. In Department research, vehicles containing tung oil or chemically-modified tung oil have been synthesized and formulated into paints. These experimental coatings are highly resistant to water and to weather; they perform well in the standard Underwriters Laboratories 25-foot tunnel furnace test and also have good drying and bonding characteristics and serviceability. The tremendous industrial interest in those formulations indicates that commercialization would help consume large volumes of domestic vegetable oils--not only tung, which is an essential component, but also linseed oil, dehydrated castor oil, and others. However, the research has even more important implications, since effective fire-retardant coatings should greatly reduce losses due to fires: over 11,000 lives and over \$1.5 billion dollars' worth of property annually in the United States alone.

D. Tobacco

Tobacco Utilization Research Reoriented and Expanded. Since publication of the Report to the Surgeon General on Smoking and Health, the emphasis in utilization research on tobacco has been shifted from studies on quality factors to investigations on smoking-health relationships. An extensive program has been initiated on the isolation and identification of new leaf and smoke components which

may have physiological effects. Included in this program are studies on the neutral resins of leaf and heterocyclic bases of smoke which are being conducted under contracts at the Research Triangle Institute (Durham, North Carolina) and at the University of Kentucky, respectively. An investigation is underway on the development and evaluation of new cigarette additives capable of altering the smoke composition; the Houdry Process and Chemical Company, specialists in catalysis and process alteration, are under contract for a substantial part of this research. An extensive program has been initiated under contract at the University of Kentucky Medical School to provide a biological assaying service for the analysis of experimental tobacco and smoke condensates, and to conduct basic studies to develop more rapid biological assaying methods. This reoriented program will make significant contributions in elucidating the factors responsible for the physiological effects of tobacco smoke.

E. Dairy Products

Commercial-Scale Process Developed for Removing Strontium-90 from Milk. Commercial-scale development of the Beltsville fixed-bed cationic ion-exchange method of removing radiostrontium from milk has been achieved successfully through contract research supported in part by the Public Health Service. The milk was processed at a rate of 12,500 pounds per hour in an established commercial dairy which had been equipped with strontium-90 removal equipment. More than 90 percent of the environmental radiostrontium was removed from the milk without appreciably affecting its appearance, flavor, wholesomeness, or nutritional quality. The additional equipment required can be readily integrated into commercial milk processing operations without significant increase in processing time. The additional cost for removing radiostrontium from milk is estimated to be from one to two cents per quart, depending on the daily volume of milk being processed and the extent of reuse of removal materials. The method provides a feasible and practical "standby" means for commercially processing milk in the event of a nuclear emergency.

EXPANDING DOMESTIC MARKETS

A. Market Potentials for New Products and New Uses

Innovation is the most important generator of growth in our economy. The research and development program of the Department is an important source of innovational development for our agricultural as well as total economy. Market potentials research supplies the economic analysis and service part of the Department's total program on new products, new crops, and new uses to maintain and expand markets for farm products and their derivatives. This research aids in the commercial development of new products and uses through evaluations of economic feasibility and potentials. In addition, guides for further research are provided through appraisal of end-use requirements with respect to (1) needs that may be met through new or improved products or derivatives, and (2) the competitive conditions of price, properties, availabilities, and costs of raw materials.

Research is conducted cooperatively with the four Utilization Research and Development Divisions. This enables the Department to evaluate economic as well as technical factors, and to guide and hasten decisions regarding commercial adoption of products developed by the Department. An ERS economist is stationed at each Utilization Research and Development Division to develop a program of cooperative economic-utilization research and to provide liaison between the Economic Research Service and the Agricultural Research Service. In addition, cooperative work with state universities is expanding through consultation and joint projects as more and more of these institutions recognize the need for new and improved product research.

Past research has helped in expanding markets for products such as potatoes, apples, fats and oils, and rice through commercialization of new products and the provision of market development guides. Benefits have resulted in the form of increased consumption of farm products, new plant investments, and new job opportunities. The following examples are of current work in a number of commodity areas.

Dairy

Changes in consumer purchasing habits combined with competition from other products have been significant factors behind a general downward trend in per capita consumption of fluid milk products during the last ten years. Efforts are being made to ascertain the optimum dairy product mix to meet changing market requirements and to maximize consumption. Studies of low-fat milk show that sales of this product which reached 620 million quarts in 1963 could reach 1.8 billion quarts by 1970. Although there is some substitution for other milks, new users of fluid milk were brought into the market and

other users retained when the low-fat product was made available. Impact on total sales will be analyzed to assist dairymen in their marketing decisions. Other work includes research to determine the specific levels of fat and nonfat solids which would meet with the greatest acceptance. Also, market testing is underway in cooperation with the University of Wisconsin to determine whether sterile concentrated milk can find a market position advantageous to milk producers and processors.

Hides and Leather

Theoretically, removal of less desirable portions of cattle hides would provide a uniform product of high quality and enable hides to compete better with substitutes. Study of the economic feasibility of the adoption of this change has led to a proposed new hide trim by the USDA. Testing of the trim under actual processing conditions indicates that removal of bellies and heads from a hide (30 percent) at the packinghouse, prior to curing, improves the quality of leather and increases economic returns for all segments of the industry. Packers can sell the trimmed hide for the same price as a whole hide but reduce their curing costs. Transportation and brokerage are reduced. Tanners have 10 percent higher leather yields; 25 percent improvement in quality; and a tanning efficiency increase of 12 to 15 percent. Shoemakers pay slightly higher prices for the leather, but can cut the leather as much as 60 percent faster and reduce cutting losses up to 12 percent. Studies also were made of possible markets for those portions of hides removed in the trimming operation. It was found that fresh hide trimming could bring about 2 cents a pound if converted into edible collagen (sausage casings) or rendered into feed and oil by a new process. Currently, packers lose about 2 cents a pound on hide trim.

Factors Affecting Demand for New Products

A major problem of serious and costly import in new product development has been the lack of objective criteria for evaluating probable market success. Out of about 6,000 new food products offered commercially each year, only about 500 actually succeed. Investment losses are heavy. Basic research was directed to the demand factors for new products. These were measured and an equation was developed; estimated values of sales levels were then compared to actual sales.

About 84 percent of the variation in sales of 110 convenience foods was explained jointly by the following factors: Cost, degree of competition, importance of product group in consumer purchase patterns, availability, success of similar items, and special variables for product groups.

This work delineates for the first time the relative importance of various factors on demand for new products. Its use could help reduce product failures by providing guides in the developmental stage of factors to consider in making marketing decisions.

Industrial Uses for Agricultural Products

Research is continuing to ascertain potentials for agricultural products in industrial uses, and to help improve their competitive position relative to nonagricultural products. Particular attention is being paid to starch, the key to expanded use of cereal grains, and to fats and oils. The precise nature of the technical and economic competition facing these agricultural materials is being studied to furnish guidelines on cost-price relationships and performance characteristics needed to resist further market erosion. Also, results of work on the economics of feeding whole (cooked) soybeans are proving of value to farmers, feeders, and feed mill operators in considering the feasibility of this practice under local conditions.

B. Merchandising and Promotion

Results of a six-market study conducted in cooperation with the American Dairy Association to determine the sales response to different levels of promotional investments for fluid milk showed a positive response to increased investments. Investment levels included in the test were:

- A. Current level of promotional expenditures made by ADA of 2 cents per capita annually;
- B. Current level plus 15 cents per capita annually; and
- C. Current level plus 30 cents per capita annually.

Compared to current or normal level of promotional expenditures, the medium level produced a 4.5 percent increase in sales volume, and the highest level produced a 5.9 percent increase in sales.

Translated into dollar returns to producers who financed the promotion, volume increased in fluid milk sales attributed to the medium and high level yielded net returns over the cost of the additional investment of approximately \$161,000 and \$85,000 respectively. The medium level (15 cents per capita above current level) of promotional investment was the most profitable of the levels tested.

Analysis was made of the impact of special promotional campaigns for frozen concentrated orange juice conducted in 1959 and 1962 on returns to producers. Based on the estimated retail price reduction necessary to obtain the same sales movement attributed to the pro-

motion campaigns, the 1959 campaign increased growers' returns approximately 50 cents per box, and growers' returns for fruit marketed prior to the freeze in December 1962 were increased about 75 cents per box.

Controlled experiments evaluating the effect of packaging on retail sales of fresh grapefruit, in cooperation with the Florida Citrus Commission, revealed that sales were significantly greater from packaged displays than from bulk displays. Additional sales increases were obtained when store customers were given a choice of packaged and bulk fruit. Also, sales from displays of packaged fruit labeled as to area of origin were significantly higher than for similar displays not labeled as to origin, but only when consumers had some prior knowledge of the fruit. Identification of fruit as to origin that was not familiar to consumers had no immediate effect on sales. The implications are that consumers do recognize and associate quality characteristics with identifiable products; farmers can enhance their bargaining position through properly planned and coordinated merchandising programs.

C. Public Programs

Research concerning the effect of public food distribution programs on food consumption by children and needy persons is continuing.

Findings from a special survey of food consumption and expenditures by eligible families not participating in the Food Stamp Program in St. Louis, Mo., resulted in Federal-State actions increasing effectiveness of the program in Missouri and other states. The findings related to coupon-purchase requirements which normally increase as family income increases, and to methods of family-income classification.

A survey of retail food store sales was conducted in Avoyelles Parish, La., in January 1965, to determine changes in levels of food sales since 1963 when a similar study was undertaken. The expansion in retail food store sales of about 8 percent which resulted from initiation of the Food Stamp Program in this rural community is being maintained.

A study of the use of central food preparation and distribution procedures in selected urban school lunch programs indicated how such centralized procedures might be applied in schools where installation of kitchens and lunchrooms is not feasible, physically or economically.

Findings concerning the number and proportion of needy children in schools not offering lunch services have provided guidance in making special assistance available under the National School Lunch Program to schools with a high percentage of needy children in attendance.

The National Survey of Household Food Consumption 1965 was initiated in March 1965. Important types of new marketing information to be obtained include measures of seasonal food consumption, food usage and expenditures by sex, age of consumer, and foods eaten away from home--when, where, by whom, and at what cost. This agency contributed in the planning of marketing aspects of the survey which is being conducted under the direct supervision of the Consumer and Food Economics Research Division, ARS.

Detailed plans were developed for a survey of Away-from-Home eating in cooperation with the food industry. The proposed survey of restaurants and institutional food service establishments aims to provide measures of quantities and types of food products utilized through major institutional food outlets, the structure of the food service industry, and the relative importance of this industry in terms of total food consumption and farm income.

IMPROVEMENT OF MARKETING FACILITIES

Products of the farm move through a succession of marketing facilities on their way to consumers. These facilities are used to assemble, store, prepare, process, transport, and distribute farm and food products. They are depended upon to provide an orderly and efficient channel for bridging the gap between farmers and consumers. To function satisfactorily they must handle the products with the least possible cost and deliver them to the maximum number of consumers in the best possible condition. Many of the facilities being used are inefficient, inadequate, outdated, poorly designed, in the wrong locations, or not equipped in other ways to serve efficiently. Such shortcomings are unnecessary, add to the cost of marketing, and tend to increase the spread between the price received by farmers and that paid by consumers. Changes in production and consuming areas, increased population, innovations in marketing, changes in services required to be performed by the marketing system, effects of urban renewal, automation, changes in the size, number and location of marketing firms, higher costs, and many public programs affect these marketing facilities. Because of the widespread influence of the facilities used in marketing on producers, handlers, and consumers, public guidance and research assistance is necessary in planning, improving, and promoting the construction of modern marketing facilities.

In response to requests for assistance plans were developed for improving many kinds of facilities. In producing areas the facilities planned included egg assembly plants, poultry processing plants, fruit and vegetable packinghouses, livestock slaughtering plants, dairy plants, and grain elevators. In transportation efforts were concentrated on improving the efficiency of moving products by rail, truck and water. Considerable attention was given to the development of containerized transportation in order to facilitate the handling of products from one method of transportation to another, thus reducing the costs of handling and the damage to the products. Due to the antiquated condition and great inefficiency in many of the wholesale food distribution facilities of large cities and to urban renewal programs which seek to remove these blighted areas, the development of plans for modern centers of food distribution in large cities was emphasized. In these food distribution centers products are received by rail and by truck from producing areas in practically all the states. They are unloaded and with or without further processing are delivered to retail food stores and public eating places throughout the consuming area.

During the year studies which led to the development of plans for new facilities in Springfield, Massachusetts; San Juan, Puerto Rico; Boston, Massachusetts; and Montgomery, Alabama; were completed, and at the close of the year studies were underway in Chicago, Dayton, Baltimore, Huntington, West Virginia and Honolulu. Additional

construction of dairy plants, meat processing and distribution facilities, a refrigerated warehouse, frozen food distribution facilities, a grocery warehouse, and a chain store warehouse have brought the 100 million dollar food distribution center in Philadelphia nearer to completion. The 38 million dollar fruit and vegetable section of a new food distribution center for New York is nearing completion and negotiations are underway for the acquisition of more than 100 acres of adjacent land upon which to construct meat, poultry, and seafood facilities. Sites have been selected and partial financing arranged for new facilities in both Boston and Springfield, and the initial facilities in the new San Juan market area have been occupied.

During the year 73 studies were made of marketing facilities located in producing areas of 20 states. These included both the development of plans for remodeling old facilities and the determination of locations where new facilities are required and the development of plans for such facilities. Of the total number of producing area studies made 29 dealt with poultry and egg marketing facilities, 24 with livestock and meat, 3 with fruits and vegetables, one with dairy products, and 16 with various types of warehousing.

The work on improving transportation facilities was conducted in cooperation with farm organizations and shippers, railroads, trucking lines, and firms engaged in ocean transportation as well as with manufacturers of transportation equipment. While the activities designed to improve the efficiency of transporting products within the United States were conducted, for the first time the work was expanded to include transportation to overseas markets. For example, several different commodities were loaded in refrigerated trailers in producing areas, moved either by rail piggyback or over the highways to ports where the entire trailer was lifted onto a ship destined for Europe, unloaded at the foreign port and moved directly to distribution facilities in various European countries. These experiments were undertaken for the purpose of finding lower cost ways of delivering products of American farms in satisfactory condition to European outlets in order to broaden the market for United States products and to help with the foreign exchange problem.

Besides the work to improve the facilities used in marketing, transporting, and storing farm and food products considerable attention was given to determining or developing handling equipment for use in such facilities that would minimize handling costs and the damage to the products being handled. In all of these efforts the Department has not attempted to do all of the work itself but has conducted all of its studies with the cooperation and support of the firms engaged in these activities and has pursued the policy of encouraging state agencies, distributors and other private firms to undertake much work of this kind. The combined effect of all of these efforts to improve the efficiency of handling food through marketing channels has become very great, as is shown by the fact that the improvements made during the past 15 years have made a

difference of more than 8 billion dollars per year in the cost of food distribution.

PROMOTION OF EXPORTS

Expansion was continued in FY 1965 of foreign market development activities. During the year, 80 new projects totaling about \$14.7 million were approved. Since the beginning of the program, approximately \$101 million in USDA funds generated from Public Law 480 have been obligated for cooperative trade projects and trade fairs. Cooperating trade and agricultural groups have obligated themselves to contribute about \$45 million from their own resources, bringing the foreign market development program total to about \$146 million.

The project agreements cover a wide range of activities, including market analysis, studies of consumer demand, merchandising clinics, exhibits, food processing training schools, promotional contests, cooking demonstrations, tours by foreign groups of U.S. agricultural industries, advertising campaigns, surveys by teams of commodity representatives, and production and distribution of promotional and educational materials.

The Foreign Agricultural Service sponsored important food shows in Hamburg, Vienna, Birmingham, Blackpool, London, Verona, Madrid, Luxembourg, and Paris; smaller scale exhibits were shown at Santiago, Paris, Tokyo, Berlin, and Bari. In addition, processed food shows were held at the Frankfurt, London, and Tokyo Trade Centers. Other Trade Center exhibits featured soybeans at Tokyo, fruits and vegetables at London, and general commodities at Milan. The cooperation of U.S. trade associations dealing in agricultural products enabled the Department to display, demonstrate, or sell U.S. products.

Efforts to develop markets in Europe for U.S. meat and meat products, begun in 1964, were accelerated in 1965. Meat products were displayed and sampled in trade fairs in six European countries. The U.S. grand champion steer was featured in a beef promotion program in West Berlin. Seminars and trade teams both to and from the U.S. were techniques used to promote meat products.

A milk and ice cream bar for athletes in Tokyo was used to promote U.S. dairy products. Milk, ice cream and several flavored milk drinks were served at no charge to athletes from all participating countries for almost six weeks before and during the games. The large amount of publicity generated is being used to promote dairy products.

A team of West German journalists, radio and TV representatives was conducted on a tour of American farm areas as a means of informing them on U.S. agricultural policies and products. Team members in turn are helping to inform the German people on American agriculture.

FARMER COOPERATIVES

Farmer cooperatives continued to develop and expand markets for agricultural commodities including surplus products at home and abroad. A major effort has been made in organizing commodity promotion programs such as for dairy and citrus products. In foreign markets, cooperatives have been sharply increasing their sales activities. They also have taken part in trade fairs and other promotional events. In the last few years, ten cooperatives have received the President's E Award for excellent work in developing and promoting export trade.

Cotton marketing cooperatives are important merchandisers of cotton to both domestic and foreign mills. They advertise extensively in foreign cotton trade journals and cooperate in advertising cotton to consumers. Cotton cooperatives have sales offices or agents in all major and some minor cotton importing countries to help buyers obtain the quality of U.S. cotton that best suits their needs. They have been exporting around 1.5 million bales of cotton annually.

In an effort to increase the bargaining position of cooperative growers, 19 regional grain cooperatives joined forces to form an export company. The regional cooperatives are owned by about 1,600 local cooperative elevators. The export company has exported millions of bushels of grain and oilseeds to about 30 countries around the world; it has yet to receive a complaint on grain quality.

Kansas farmers are now directly benefited by a market for their wheat in the form of bulgur. The bulgur goes mostly to some 38 foreign countries under the Food for Peace Program. A small amount is used domestically in schools, by charitable organizations, and by needy people.

Farmer Cooperative Service has worked with a group of 23 soybean and cottonseed oilseed cooperatives in establishing a joint sales agency to market oil and meal domestically and in the foreign market.

A cooperative participated in a Wisconsin export mission to European markets, resulting in substantial sales of burdensome cherry product inventories. The volume sold made possible the direct loading of an oceangoing vessel in Wisconsin.

One cooperative is the United States largest volume exporter of broilers. Other cooperatives make substantial exports of turkeys. Poultry cooperatives have been leaders in developing convenience products, which help broaden the sales base in both domestic and overseas markets. At least four cooperatives have joined the International Trade Development Board which hopes to create new world trade in poultry products with a rigid quality program, trademarks, and promotional activity.

Cooperatives have been leaders in advertising to develop and expand markets for agricultural products. One citrus cooperative prepares advertising materials in 12 languages. Cooperatives provide about two-thirds of the funds used by agricultural producer-processor groups for foreign promotion. The Farmer Cooperative Service provides information and assistance on the development of export programs. The Service conducts several studies each year to advise cooperatives on the organization and operation of joint sales agencies and coordinated marketing programs. These agencies and programs greatly improve the ability of cooperatives to expand export markets for their members' products.

The Forest Products Laboratory and the Regional Experiment Stations of the Forest Service conduct a continuing program of research to develop new uses and expand existing markets for wood. Emphasis is given to utilization and marketing of surplus low-quality timber, little-used species, and unused residues. Examples of such research are as follows:

A highly promising new polysulfide pulping process for substantially greater yield of kraft-type pulp was brought much closer to commercial realization with the discovery of an efficient process for recovering reusable chemical from the sulfur-enriched spent liquors. The new recovery system not only improves the economics of the pulping process, it reduces the hazard of polluting waterways with oxygen-consuming effluent and also promises to reduce air pollution. Polysulfide pulping yields up to one-fourth more pulp from a given amount of wood than conventional kraft pulping. The new recovery system also has advantages for other pulping processes suitable for surplus low-quality timber.

Present timber quality standards are in the form of log-grades which are applied to cut logs or to log lengths in standing trees. Considerable judgement is required to accurately grade upper log lengths of tall trees in the dense stands of the West. A newly developed tree grading system is easier to apply, requires less time to evaluate each tree, and practically eliminates judgement considerations. Three simple measurements on the easy-to-see butt 16-foot section of the stem, plus a determination of the merchantable height of the tree, complete the inspection. Thus, the new system will provide more uniform results in quality cruising. The system is unique in that trees are not placed in discrete classes or grades in the traditional manner. In effect, there may be an infinite number of grades, since the system uses a simple equation to predict individual tree value (dollars per thousand board feet) for standard lumber production. A 1,000-tree sample from four states indicates the system predicts tree value at least as accurately as grading each log length in the standing tree by the most accurate log grading system available. Its use requires a minimum of training. It should, therefore, appeal to both public and private foresters of the West who have expressed a need for such an evaluation system.

Experiments at the Forest Products Laboratory demonstrated that improved sawing methods can substantially reduce warping in 2 by 4 studs cut from loblolly pine logs obtained in Georgia. Warp seriously reduces the grade of studs which are widely used in walls of houses and other light construction. Key to the improved sawing method is the positioning of the log so that the pith wood is confined to a wedge-shaped piece (residue) from the center of the log. Pith wood shrinks and swells longitudinally much more than normal wood, hence

studs containing unbalanced proportions of pith warp out of shape. The improved method produced 47 percent more No. 1 and better grade studs from butt logs than the conventional sawing method widely used in the South. In upper logs the warp problem was much less severe for all sawing methods studied, but even from these logs the improved method produced 7 percent more No. 1 studs. Studs produced by the improved method also averaged 10 percent higher in stress rating than those sawn by the conventional method. Since the improved method produces more top stress grade studs and fewer rejects, it is estimated that it would increase production of top-grade studs by about 20 percent. Based on current southern pine lumber prices (f.o.b. mill) a thousand board feet of lumber produced from butt logs by the improved method was worth about \$10.50 more than when produced by the conventional method. For a daily production of 40,000 to 100,000 board feet this means an additional income potential of \$50 to \$500, depending on mix of butt and upper logs being sawed.

Exploratory research on a new approach to planing softwood dimension lumber has resulted in a process for producing flakes much more suitable than conventional planer shavings for use in particleboard and pulp. Particleboards made from the new-type flakes were up to 50 percent stronger and more dimensionally stable. Key to the new concept is a disk or ring planer head with knives that cut across the face or edge of the stock rather than along its length. Flakes produced are quite uniform in length and thickness, rather than haphazard in shape and curled. The cutter does not produce as smooth a surface as a conventional planer head, but a highly satisfactory surface can be obtained with a second, abrasive cutter that produces fine particles suitable for boards and moulded products. An estimated 10 million tons of planer shavings are produced yearly in western dimension mills alone, and most of them are burned as scrap or to generate power. Their poor shape is chiefly responsible for their low value, about \$3 a ton, for pulp or particleboard. The uniform, flake-like shavings produced by the New Forest Products Laboratory cutterhead would be worth an estimated \$6 a ton for pulp and at least \$15 a ton for particleboard. The fine, hair-like fibers removed in the second-step abrasive planing would also probably be worth up to \$15 a ton. If, only one-half of the western planer shavings could be upgraded in value from \$3 to \$10 per ton, the annual economic gain would be \$35 million.

A comprehensive analysis of trends in national consumption of timber products in construction, manufacturing, shipping and other end uses indicates that demand for timber products by the year 2000 may exceed current use by 80 percent. Since 1920, total use of "industrial" wood in the United States (all wood except fuel wood) increased by about one-third, reaching 10.7 billion cubic feet in 1962. Projected demand, developed in this study, rises to 20.8 billion cubic feet by 2000. Lumber use is projected to increase from 37.3 billion board feet in 1962 to 53.5 billion board feet in 2000, with nearly 90 percent of the increased use in construction. Plywood consumption

is expected to increase $2\frac{1}{2}$ times, with about 70 percent of the increase in construction. Demand for pulpwood is projected to increase three-fold by the end of the century. Wood products are expected to make up about 21 percent of all industrial raw materials used in the year 2000--roughly in line with recent trends. To maintain this sizable portion of the total market for raw materials will require continued improvement in productivity of wood-based industries and effective marketing of wood products.

The amount, quality, and cost of timber, labor, water, transportation, and other resources and facilities in selected areas of West Virginia and Minnesota were evaluated in terms of their effect on opportunities for industrial development and expansion of local employment. Such studies provide both public and private agencies with needed information on potential development of timber resources in these areas. Of five areas studied in West Virginia, for example, three have resources favorable to expansion of lumber production, two have advantages for particleboard production, two are better suited than the others for furniture production, and one is superior for a woodpulp industry. The analysis also shows that prospects for manufacture of lumber, woodpulp, and furniture parts are better than those for particleboard and finished furniture. In Minnesota, transportation cost advantages, water supply, and other factors favor development of fiberboard production at several locations, but there are fewer satisfactory locations for pulp mills requiring large volumes of water. More than 6,000 persons in the Minnesota study area were actively seeking employment. Most possessed technical skills, were in the younger age classes, and were relatively well educated.

There is an overabundance of wood in the Appalachian area suitable for production of treated wood guardrail posts, yet few of the 25 to 30 thousand posts used annually along West Virginia highways are made of wood. A recent study in that state showed that, contrary to common belief, installed cost of treated wood posts was 15 to 20 percent less than that of steel posts now widely used. A new company formed on the basis of these findings is now installing wood guardrail posts in West Virginia. A major drawback to the use of wood is the slow rate of setting which creates problems for contractors who generally install guardrails during a limited period in the late fall. Research is underway to test a commercial machine which preliminary tests indicated can drive wood posts at a satisfactory rate.

One important consideration in the selection of flooring materials by architects, builders, and homemakers is the ease and cost of floor maintenance and its effect on the long-run cost of the floor. Claims of easier and cheaper maintenance play a leading role in promotion of resilient flooring and carpets even though there is little evidence to support claims that one type of flooring is superior in this respect to another. Preliminary results of a study now underway indicate that hardwood floors last 2 to 4 times as long

and require much less time and expense to maintain than nonwood flooring materials commonly used in residences. In Boston, for example, time spent per square foot maintaining exposed hardwood floors in living rooms averaged 28 to 82 percent less than time spent on various nonwood floors or floor coverings studied. Furthermore, the average unit cost of maintaining wood living room floors, including all materials and professional care, was less than half the cost of maintaining wood's nearest competitor. If these figures are substantiated by data now being analyzed from eight other cities included in this study, they will be of inestimable value in efforts to preserve and expand markets for hardwood flooring in residence.

PART IV

RECOMMENDATIONS FOR ADDITIONAL LEGISLATION NECESSARY TO
ACCOMPLISH THE PURPOSES OF THIS SECTION

The Department has no legislative recommendations to submit at this time, but proposals may be submitted at a later date.

APPENDIX I

LEGISLATIVE AUTHORITIES FOR CCC DISPOSITION METHODS

1. DOLLAR SALES

Domestic

Section 407 of the Agricultural Act of 1949, as amended, places certain restrictions on domestic sales of CCC-owned commodities. Under this section the general rule is that CCC may not sell for unrestricted use any basic agricultural commodity or storable non-basic commodity at less than five percent above the current support price plus reasonable carrying charges.

Public Law 88-297 permits the delivery of cotton at the market price in exchange for payment-in-kind certificates and rights purchased in the pool under the Cotton Equalization Payment Program which was authorized by the Agricultural Act of 1964.

Public Law 88-26 permits CCC to deliver feed grains, valued at not less than the current loan rate plus reasonable carrying charges, in redemption of payment-in-kind certificates issued under the 1964 and 1965 feed grain diversion and price support programs.

Export

Section 407 of the Agricultural Act of 1949, as amended, authorizes the sales of CCC-owned commodities for export without price restriction. Sales for export include sales made on condition that commodities of the same kind of comparable value or quantity be exported in raw or processed form.

Specific authorities with respect to export sales of cotton are as follows:

1. Section 203 of the Agricultural Act of 1956 directs CCC to encourage the export of cotton by offering to make cotton available at prices not in excess of the level of prices at which cotton of comparable qualities is being offered in substantial quantities by other exporting countries. Such quantities of cotton are to be sold as will re-establish and maintain the fair historical share (as determined by the Secretary of Agriculture) of the world market for U.S. cotton.

2. Public Law 87-548 directs CCC to sell for export the foreign-grown extra long staple cotton acquired from the stockpile at prices not less than world market prices, as determined by the Secretary.

3. Public Law 88-638 directs CCC to make available for sale for export domestic extra long staple cotton acquired through price support operations at prices not in excess of prices at which cotton of comparable qualities is being offered by other exporting countries.

CCC Credit Program

Under authority of the CCC Charter Act sales of agricultural commodities are made pursuant to the CCC Export Credit Sales Program on a deferred payment basis for periods up to three years. As a general policy the credit period is limited to 12 months for cotton, grain sorghums and tobacco and 6 months for all other commodities. Written justification must be made for exceptions to this policy. Interest is charged at the rate announced each month by CCC and runs for the length of the credit period. All sales under the program are made to U.S. exporters who in turn sell and pass on credit to the foreign buyers. Until December of 1965 an assurance of payment from a bank in the United States was required for all purchases. The program is now under revision permitting acceptance of certain foreign bank obligations.

Title IV, Public Law 480

Title IV, Public Law 480, approved September 1, 1959 provides for long-term supply and dollar credit sales of U.S. surplus agricultural commodities. Major objectives of this title are to stimulate and increase the sale of U.S. surplus agricultural commodities for dollars through the extension of credit which will assist in maximizing U.S. dollar exports of such commodities, develop foreign markets for U.S. agricultural commodities and assist in the development of the economies of friendly nations.

Under Title IV of PL 480, the President may enter into long-term supply and credit agreements with the governments of friendly nations and the Secretary of Agriculture may enter into similar agreements with the U.S. or foreign private trade. Under the legislation, such agreements may provide for delivery of U.S. surplus agricultural commodities over periods up to 10 years. Dollar repayment over periods of up to 20 years is authorized.

Interest is charged from the date of last delivery of commodities under the agreement in each calendar year. Rates of interest, as determined by the Secretary of Agriculture, may not be set at less than the minimum rate specified in the Foreign Assistance Act for dollar repayable development loans. This rate is $2\frac{1}{2}\%$ per annum commencing not later than 10 years following the date on which funds are initially made available under the development loan, during which 10 year period the rate of interest shall not be lower than 1% per annum.

To be eligible for export under a Title IV sales agreement the commodities must be agricultural commodities or products thereof

produced in the United States and determined by the Secretary of Agriculture to be in surplus in accordance with the PL 480 legislative provisions namely: They must be in excess of domestic requirements, adequate carryover, and anticipated exports for cash dollars and must be in surplus at the time the commodity is actually exported. Eligible surplus agricultural commodities include those under CCC price support as well as others not under CCC price support.

In accordance with U. S. cargo preference legislation (Public Law 664), not less than fifty percent (50%) of the total tonnage of commodities exported under a Title IV agreement must be shipped on U. S. flag vessels.

A-Government-to-Government Agreements

Program Policies

Country Eligibility. Although the Title IV legislation authorizes sales agreements with the government of any nation friendly to the United States, government-to-government agreements are, as a general rule, limited to the less highly developed countries. Eligibility of any friendly nation is generally determined on the basis of the country's financial status and its ability to undertake purchases of surplus agricultural commodities on a dollar basis. Due consideration is given to the use of the commodities and credit in connection with the country's economic development, the ability of the country to purchase commodities under a Title IV agreement without displacing commercial imports from the U. S. and other friendly supplying countries, and other relevant factors.

Supply and Payment Periods and Interest Rate. The supply period is generally limited to three years. The payment period and interest rate are determined on a case-by-case basis, the general rule being that the payment period and interest rate are set in relation to the country's financial situation, stage of economic development and other similar factors. The legislation provides that payments in dollars may be made in reasonable annual amounts over periods not to exceed 20 years from the date of last delivery of commodities in each calendar year.

The initial payment of principal may be scheduled as late as two years after the date of last delivery of commodities in each calendar year after the agreement. Prepayment of principal and interest is permitted if the other government desires to retire the obligation at a faster rate.

Interest rates under Title IV government-to-government sales agreements are generally related to the country's financial situation. In the case of more highly developed countries with relatively favorable financial positions, the interest rate is generally set at

the cost of funds to the U. S. Treasury. In the case of developing countries, it is generally set at the same rate charged in dollar repayable loans for economic development under the Foreign Assistance Act. The maximum period of principal deferment under a Title IV sales agreement is two years from the date of last delivery in each calendar year. Interest is charged on all shipments in each calendar year from the date of last shipment of any commodity under the agreement in such calendar year.

Agreements. Title IV agreements set forth the commodity composition, financing terms and conditions, general undertakings and other requirements. Title IV programs, as appropriate, include provisions to assure that commercial exports of the United States will be maintained and that the supply of commodities under the agreement do not unduly disrupt world prices of agricultural commodities or normal patterns of commercial trade with friendly countries. The sales agreement also provides that the commodities purchased under the agreement are for domestic consumption within the purchasing country and shall not be transshipped or re-exported. As appropriate, agreements also provide for limitations on exports of the same or like commodities, or primary products thereof, during the period covered by the Title IV agreement.

As a general rule, negotiation of a Title IV agreement includes a formal understanding that the two governments shall agree on the use of the local currency proceeds from the sale of commodities under the agreement. In some cases, this mutual agreement on proceed uses is specifically set forth at the time the agreement is entered into. In others, only a general understanding is reached at the time the agreement is entered into that the two governments shall mutually agree on the use of the local currency sales proceeds with specific understandings for implementation of the general understanding to be worked out at a later date. These understandings, particularly in those instances where interest rates have been set at less than the cost of funds to the U. S. Treasury, generally would include specific understandings providing for mutual agreement with regard to interest rates and other terms of any relending to private or non-governmental entities of the local currency proceeds from the sale of Title IV commodities within the purchasing country.

B-Private Trade Agreements

Eligibility of Private Trade Entities

Any private trade entity of the United States or friendly foreign countries which otherwise meets program requirements is eligible to enter into an agreement with the Commodity Credit Corporation (CCC).

An entity may be an individual, firm, partnership, corporation, cooperative, or association engaged in private enterprise or non-governmental activity. As a general rule, agreements will be entered into with the private entity which will utilize the benefits of the credit in carrying out projects or programs as set forth in the agreement.

Eligibility of Countries

Under the Title IV legislation exports of surplus agricultural commodities under a private trade agreement may be made to any nation friendly to the United States provided such exports do not cash sales which would otherwise be made. In the case of highly industrialized countries which are major commercial markets for the United States, it would be difficult, as a general rule, to establish that exports under a Title IV, PL 480 private trade agreement would be additional to commercial sales. Therefore, it is not contemplated that favorable consideration can be given to proposals involving export of agricultural commodities to such countries. Commodities under this program may be exported only to countries specified in the agreement and shall not be transshipped or re-exported.

Supply Periods

Supply periods are determined on a case-by-case basis and generally are not authorized for periods in excess of three years. Longer supply periods (within the maximum of 10 years as provided in the legislation) may be authorized where the commodity supply situation permits such longer-term programming and the specific proposal for such longer supply period is otherwise deemed essential to the accomplishment of the project and the purposes of the legislation.

Maintenance of Commercial Sales

Private trade entities are required to provide appropriate assurance that exports under a private trade agreement will not interfere with commercial exports of the U.S. and countries friendly to the U.S. which have an historic record of exports to the country to which exports of commodities under the private trade agreement are to be made. Therefore, exports of commodities under this program to the countries specified in the agreement must be additional to the normal commercial exports of such commodities from the United States and friendly historic supplying nations.

Assurance of Payment

Payment of dollar amounts financed by CCC under private trade agreements shall be secured by assurers determined by CCC to be acceptable to act in this capacity. The security shall be in the form of an irrevocable assurance of payment of the annual install-

ments of principal with interest thereon. Assurers may be United States banks or financial institutions, foreign private banks or financial institutions located in a friendly nation, central banks or governmental financial agencies or the governments of friendly nations. In addition, depending on the particular circumstances, the assurers may be required to also secure performance of other provisions of the agreements. CCC prefers that the assurance of payment by foreign banks or financial institutions be advised by or through a United States bank.

Payment Periods

Payment periods are set on a case-by-case basis, the period for a particular private trade agreement being related to the specific project or projects to be undertaken under the agreement. Under the legislation, the maximum period over which payments may be made for all deliveries of commodities in a particular calendar year is 20 years from the date of last delivery of any commodity exported under the agreement in such calendar year.

Interest Rates

The interest rate is generally set at the cost of money to the U.S. Treasury for a comparable maturity. The interest rate is fixed at the time the agreement is entered into, such rate continuing for the life of the agreement.

Payment of Principal and Interest

Payment of the principal amount due for commodities and other costs financed by CCC such as ocean transportation must be made in approximately equal annual amounts, the first payment being due on the date specified in the agreement which in no event under the regulations can be set later than December 31 of the year following the calendar year in which the commodities are exported. Subsequent annual payments are due on the anniversary date of the first payment.

Interest on principal amounts financed by CCC covering shipments in each calendar year is charged from the date of last delivery of commodities in each calendar year. Interest on the unpaid balance must be paid annually not later than the date on which the annual payment of principal becomes due.

Purposes for which Credit may be Utilized - The Project

Title IV, PL 480 private trade agreements require that local currency proceeds from the sale of commodities supplied, or other benefits derived from credit extended, under such agreements are to be used only for private enterprises or other nongovernmental projects

as specifically set forth in the agreement, which will accomplish one or more of the following objectives: (1) expand dollar exports of U.S. surplus agricultural commodities, (2) develop foreign markets for such commodities, or (3) assist in the private sector of economic development of friendly nations. Relatively short term credit which would provide working capital assistance for foreign importers or users of the commodity to expand their activities and in turn their dollar purchases of U.S. agricultural commodities, is an acceptable project.

Preference is given to projects which will build additional outlets for U.S. agricultural commodities such as facilities for food processing and distribution and other supporting facilities and services essential to efficient and economical marketing.

Additional Information Available

Further information in regard to Title IV program policies and procedures may be obtained from the Office of the General Sales Manager, Foreign Agricultural Service, U.S. Department of Agriculture, Washington, D.C. 20250.

A copy of the Title IV regulations may be obtained from the Program Operations Division, Foreign Agricultural Service, U.S. Department of Agriculture, Washington, D.C. 20250. Requests to be placed on the mailing list for announcements of agreements entered into and issuances of purchase authorizations thereunder should also be addressed to the Program Operations Division.

Section 32 Funds

Long standing authority for encouraging export is found in Section 32 of PL 320, as amended, 74th Congress, approved August 24, 1935. This Act appropriates an amount equal to 30 percent of gross customs receipts for each calendar year, for use to the succeeding fiscal year, to "encourage the exportation" and domestic consumption of agricultural commodities and for other purposes. Section 205 of the Agricultural Act of 1956 authorized the appropriation for each fiscal year beginning with the fiscal year ending June 30, 1957 of \$500 million to enable the Secretary of Agriculture to further carry out the provisions of Section 32, subject to all provisions of law relating to the expenditure of funds appropriated by such Section, except up to 50 percent of the \$500 million may be devoted during any fiscal year to any one agricultural commodity or the products thereof. Since January 1, 1950 a carry-over of up to \$300 million of unexpended funds has been authorized. The Agricultural Act of 1949 directed that Section 32 funds be used principally for perishable "non-basic" commodities other than those designated to receive mandatory support under the 1949 Act.

Export programs under Section 32 are announced after the Secretary of Agriculture finds that a surplus exists. Export allowances are paid

to commercial exporters following the export of privately-owned commodities. Only a small portion of the available Section 32 funds has been used for export allowances in recent years. Currently, Section 32 funds are being utilized to encourage the export of U.S. tobacco of certain years production.

2. BARTER

Without limiting the general authority contained in the Commodity Credit Corporation Charter Act several legislative authorities specifically cover barter by CCC of commodities for strategic materials or for certain other materials, goods, and equipment. Section 4(h) of the Charter Act authorizes the barter of CCC commodities for strategic and critical materials produced abroad. Section 303 of the Agricultural Trade Development and Assistance Act of 1954, as amended, provides that the Secretary shall, whenever he determines that such action is in the best interest of the United States, and to the maximum extent practicable, barter or exchange agricultural commodities owned by the Commodity Credit Corporation for (a) such strategic or other materials of which the United States does not domestically produce its requirements and which entail less risk of loss through deterioration or substantially less storage charges as the President may designate, or (b) materials, goods, or equipment required in connection with foreign economic and military aid and assistance programs, or (c) materials or equipment required in substantial quantities for off-shore construction programs. Section 416 of the Agricultural Act of 1949, as amended, authorizes CCC to (a) make its commodities available to any federal agency for use in making payment for commodities not produced in the United States, or (b) barter or exchange such commodities for strategic or other materials as authorized by law. Also see Public Law 765, 83rd Congress, as amended. 1/

1/ Section 407, Public Law 765, 83rd Congress, as amended, authorizes the Secretary of Defense to construct or acquire by lease or otherwise family housing for occupancy as public quarters in foreign countries through the use of foreign currencies in accordance with provisions of PL 480, or through other commodity transactions of CCC. Reimbursement is made to CCC by the Department of Defense from savings in Quarters Allowance. Section 420 of Public Law 86-149 directs the Department of Defense in carrying out any project authorized by that Act or any other Military Construction Act, to utilize foreign currencies acquired under Public Law 480-83rd Congress to extent available and feasible in lieu of dollars and to reimburse Commodity Credit Corporation for any foreign currencies so utilized.

Recently, a thorough review of the barter program was made by the Executive Stockpile Committee (membership appointed by the President). Based on recommendations by the Committee, and approved by the President greater emphasis than in the past will be given to the use of barter for the procurement of non-strategic-material items which meet approved program requirements of U. S. Government agencies within funds currently available or within procurement authority which extends over a period of years and for which dollars would normally be spent abroad.

3. SALES FOR FOREIGN CURRENCIES

Title I, Public Law 480, as amended, authorizes sales of U. S. surplus agricultural commodities for foreign currencies. These sales are made through private trade channels pursuant to Government-to-Government agreements with friendly nations. Public Law 88-638 extended Title I of PL 480 for an additional three years through December 31, 1966 but placed a limitation of \$2.5 billion for any one calendar year.

4. TRANSFERS AND DONATIONS

Domestic

There are a number of different authorities under which domestic transfers and donations are made. Purchases are made from private stocks and from CCC inventories under Section 32, Public Law 320, 74th Congress, as amended, and supplemented. This legislation authorizes the donations of agricultural commodities and products for relief and school lunch program purposes.

Section 416 of the Agricultural Act of 1949, as amended, authorizes CCC, in certain circumstances, to donate food commodities acquired through price support programs to the Bureau of Indian Affairs and to federal, state, and private agencies for use in the United States in non-profit school lunch programs and in the assistance of needy persons, and in charitable institutions, including hospitals, to the extent needy persons are served.

Clause (1) of Section 9 of the Act of September 6, 1958, authorizes areas under the jurisdiction of administration of the United States to receive from the Department of Agriculture for distribution, on the same basis as domestic distribution in the United States, surplus commodities donated pursuant to Section 32 of the Act of August 23, 1935, as amended, and Section 416 of the Agricultural Act of 1949, as amended.

Public Law 86-756, as amended by Public Law 87-179, authorizes schools receiving surplus foods from the Department for school lunch purposes to use such foods in training high-school students

in home economic courses. It also provides that such schools may use the donated surplus foods to train college students if the same facilities and instructors are used to train college students in home economic courses.

Section 407 of the Agricultural Act of 1949, as amended, directs CCC to make available farm commodities or products for use in relieving distress in areas determined by the President of the United States to be acute distress areas because of unemployment or other economic causes and also in connection with any major disaster determined by the President of the United States to warrant assistance under Public Law 875, 81st Congress.

Public Law 87-127 amended Section 407 to permit more expeditious relief, in that the Secretary can make feed owned or controlled by CCC available for foundation herds at not less than 75% of the current support price when it is determined by the Secretary that an emergency exists. Public Law 86-299 permits the sale of such feed in such areas at not less than the current support price for other livestock of persons who cannot obtain sufficient feed without undue financial hardship.

Public Law 654, 84th Congress, directs CCC to make available to the Secretary of Interior grains acquired through price support operations as the Secretary of Interior may requisition for the purpose of preventing crop damage by migratory waterfowl.

To the extent that such quantities are in excess of usual commercial purchases, Section 202 of the Agricultural Act of 1949, as amended, directs CCC to make its stocks of dairy products available to the armed services and to veterans' hospitals without charge, except that such agencies shall pay CCC for the cost of packaging.

Section 210 of the Agricultural Act of 1956 authorizes CCC to donate food commodities acquired through price support programs to federal penal and correction institutions, and to State correction institutions for minors other than those in which food service is provided for on a fee, contract, or concessional basis.

Public Law 87-152 authorizes the Secretary of Interior to requisition grain from CCC for the purpose of feeding migratory birds when threatened with starvation and authorizes the use of CCC-owned grain by the States for emergency use in the feeding of resident game birds and other resident wildlife.

Foreign

Section 416 of the Agricultural Act of 1949, as amended, authorizes CCC, in certain circumstances, to donate commodities acquired under the

price support programs to non-profit voluntary agencies and to intergovernmental organizations for use in the assistance of needy persons and in non-profit school lunch programs outside the United States.

Clause (2) of Section 9 of the Act of September 6, 1958, authorizes Commodity Credit Corporation to purchase products of oilseeds and edible oils and fats and the products thereof and to donate the same to non-profit voluntary agencies, other appropriate agencies of the Federal Government or international organizations for use in the assistance of needy persons and in non-profit school lunch programs outside the United States.

Section 308 of PL 480, as amended, authorizes CCC to donate for foreign relief and foreign non-profit school lunch programs, fats and oils from its stocks or such quantities of fats and oils purchased by CCC as the Secretary determines will tend to maintain the support levels for cottonseed and soybeans without requiring the acquisition of such commodities under the price support program.

Title II of the Agricultural Trade Development and Assistance Act of 1954, as amended (Public Law 480) directs CCC to make available to the President of the United States commodities for donation to friendly nations and friendly but needy populations without regard to the friendliness of their governments to meet famine or other urgent or extraordinary relief requirements. Public Law 88-638 extended the authority contained in Title II through December 31, 1966.

5. PAYMENT-IN-KIND PROGRAMS

Payment-in-kind export programs have been developed through authority of the CCC Charter Act.

Prior to the 1964-65 marketing year, CCC conducted "payment-in-kind" export programs for upland cotton under which subsidy payments were made to exporters who shipped eligible cotton, upon receipt by CCC of satisfactory proof of exportation. In the 1964-66 marketing years, payments are being made to handlers under a two-year program authorized by the Agricultural Act of 1964 (PL 88-297). The program is designed not only to encourage exports of upland cotton by the commercial cotton trade, but also to maintain and expand domestic consumption of upland cotton produced in the United States. CCC makes payments to cotton handlers (exporters, mills, and others, except producers) by actual issuance of certificates or by constructive issuance of certificates (cash advances), and thereby such handlers incur obligations either to use cotton in domestic consumption or to export cotton. Cotton handlers must satisfy their obligations prior to August 1, 1966, and furnish satisfactory evidence of disposition. The payment rate in the 1964-65 marketing year was 6.50 cents per pound. The initial payment rate of 5.75 cents per pound announced on June 17, 1965, for the 1965-66 marketing year continues in effect, but is subject to change without prior notice. Actual certificates issued may be exchanged for cotton

in CCC inventory at domestic market prices, as determined by CCC. When cash advances are made, a certificate pool is credited with the value of the certificate. The cotton trade can obtain cotton from the pool for cash, at domestic market prices, as determined by CCC.

Other payment-in-kind export programs were carried out in the same manner as reported last year. In April 1965, flaxseed and linseed oil payment-in-kind export programs were established.

Public Law 88-26 provides for payments-in-kind to producers for the diversion of corn, grain sorghums, and barley acreage under the Feed Grain Program and for price support payments-in-kind to producers who participate in the program. The producers can redeem their certificates in feed grains from CCC stocks or can obtain a cash advance from CCC if they desire CCC's assistance in the marketing of the certificates. All certificates on which cash advances are made are pooled by CCC and rights to certificates in the pool are sold by CCC for redemptions in feed grains.



